



The New Amberola **GRAPHIC**

Winter
Number

79

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next issue:
April 1st

January, 1992

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January, 1992
(Winter)

The New Amberola Graphic

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Revised Notice

Advertisers who wish to prepare dated auction lists, etc., should keep in mind that delivery of the GRAPHIC sometimes takes upwards of three weeks to reach some parts of the country and Canada. We advise closing dates of no sooner than May 31, August 31, November 30 and February 28 for dated matter.

Editor's Notes

Much has appeared in the media lately about the state of the American auto industry, and there are some predictions that Chrysler Corporation won't see the year 2000. As one who has owned two Studebakers, a Hudson, a Packard, and two American Motors vehicles, I would hate to see the demise of still another U.S. automaker.

And yet, much of the blame falls clearly on the industry itself. GMC recently announced a recall of over a million vehicles with their V-6 engines; late model Ford trunk lids and tailgates are rusting out; Chrysler-Plymouth owners complain about high repair bills. But engineering isn't the only culprit...vehicle prices have outpaced inflation rates, frequently costing as much as a home did 20 years ago. The UAW has negotiated wages for many of their members far in excess of their inherent talents, while Lee Iacocca alone collected \$4.6 million in remuneration in 1990 (according to the Associated Press).

If the U.S. auto industry is to survive, it must offer buyers lasting quality and economy at an affordable price -- a very simple message which, unfortunately, they still don't seem to understand!

— M.F.B.

In Their Own Words

Some of These Days

THE AUTOBIOGRAPHY OF

SOPHIE TUCKER



The following excerpt comes from Sophie Tucker's 1945 autobiography *Some of These Days*, courtesy of readers Frank Hopkins and John Lampert. Although Miss Tucker may not have remembered that her records were cylinders (note that she refers to the first two songs as being "one record"), and her sequence of titles is a little off, this remains a charming vignette of the importance that landing an Edison contract had -- even in 1910.

Sophie Tucker's cylinders were all made at a time when Edison wax was most brittle, and yet today her records are highly prized souvenirs of the days when she was billed as a "coon shouter."

While I was in New York playing one of my return dates I made up my mind to follow a hunch I had. I'd heard that the Edison Recording Company was paying a thousand dollars for ten records by singers who already had a popular following. What, I asked myself, was to prevent me making ten records and chipping off the thousand dollars to make a down payment on a new house for Ma and Pa?

I went up to the Recording Company's office, saw the manager, and got him to come to the Music Hall to hear me. He offered me the contract, and it was arranged that I should make one record (two songs) the following week. I would be paid one hundred dollars for these, and would be paid in the same way for the other nine records as I made them during the year.

This arrangement didn't suit my plans at all. I tried to get the manager to let me draw the thousand dollars in advance, after the first two songs had been recorded, but he said it could not be done.

I made the songs "The Lovin' Rag" and "That Lovin' Two-Step Man." I worked a whole morning on them. When I heard the playback I turned to the boys and let out a yell: "My God, I sound like a foghorn!"

I was terrible.

However, the manager seemed satisfied with the recordings, and when I read the advertising the company put out about them I said to myself: the Edison Company must know what they're doing. They can't think I'm as bad as I think I am. They even wanted me to make a second record before I left New York. So I cheered up a little and right away my business instincts went to work. Those two records *had* to sell.

I got out my address book and sent off post cards to everyone I knew, all over the country, telling them about the records and urging them to buy them. I felt I must prove my worth to the Recording Company. I had the two hundred dollars for the first two records safely put into a postal money order and I was holding on to this like grim death until I could collect the eight hundred dollars balance. Like everybody in show business in those days who wanted to save any money, I went out and bought a post-office money order made out to myself. This could be cashed anywhere you happened to be. All of us who were constantly on the road used to do that. We let Uncle Sam keep our savings for us.

While I was still in New York that time Mama came down and brought Son to spend a day with me. Every time I got to New York I would let them know at home and send the railroad fares so Mama or Pa or Anna could come down on an excursion ticket and bring Son along. He was growing up fast, going to kindergarten at the Brown School where I had gone; not a baby any more. Pa just worshiped him. He wouldn't let Anna take Son to school on his first day there. He insisted on doing it himself so he could tell

the teacher how smart his grandson was.

Every time I saw my boy I felt I must work harder, get ahead quicker, make more money so I could do more for him. I wanted to send him away to a good boarding school, a military school where he wouldn't be spoiled the way poor Pa spoiled him at home. And every time I saw Mama, getting old and bent, still working hard to make the restaurant pay and to catch up on what Pa lost in those pinochle and poker games, I felt I couldn't wait another week to get her out of that life and into a home of her own where there would be no restaurant business for her any more.

But to do that would take a good lump sum to start off with besides what I could send her regularly every week out of my salary.

After I put her and Son on the train at Grand Central to go back to Hartford I hurried back to the theater to get ready for the night show. My mind was in a whirl. Somehow or other I *had* to get the money to buy Mama a home of her own. I had two hundred dollars toward it, but I needed one thousand dollars. There was a house on Maple Avenue she said she liked. I had asked her some questions about it, not letting on, though, that I was figuring on a way to buy it for her. Then back in the theater, putting on my make-up, I got my big idea.

I'll write to Mr. Edison himself, I said. No, I'll go to see him. I'll tell him right out why I want the thousand dollars, and I'll promise to make the other eight records any time he wants them if only he'll pay me for them in advance. Then, still smearing on the cream, I let my imagination run on, planning how I'd dash up to Hartford before I started out on the road again, and how I'd pull the grand out of my pocket the way a magician takes rabbits out of a silk hat, and say to Mama: "There's your home. Now let's go right out and buy it."



The next morning saw me over in Orange, New Jersey. I couldn't see Mr. Edison, but I did see his secretary. I explained the matter to him, and he promised to take it up with Mr. Edison. He said I could expect a letter in a few days' time.

So I didn't go to Hartford after all. I didn't have any wonderful good news to take me there. Instead I left for Indianapolis to play a week's engagement. I'd given the secretary my address, and every day the first thing I did on coming into the theater was to look in the mailbox for the promised letter.

On Wednesday, I remember, I got to the theater early for the matinee. Maybe I had another hunch that I would hear that day. Anyway, there was the letter. And in it a check for eight hundred dollars.

I didn't waste a minute getting down to the post office and buying another money order for eight hundred dollars payable to Brother Phil. And right after the matinee I got the letter off to him enclosing the order and telling him to buy Mama the house on Maple Avenue she wanted and to move the family into it right away. Now that I was working steadily I would send money regularly every week to keep up the payments and to take care of Ma and Pa. No more restaurant. That was done with forever.

In the same mail went a heartfelt note of thanks to Mr. Edison, who had made all this possible. Enclosed in this was a signed agreement to make the remaining eight records when I came back to New York.

FROM THE EDISON VAULT

by Ray Wile

Random Notes Concerning Edison Recording Artists

During the past few months I have been devoting much of my time towards the eventual compilation of an Edison matrix listing. I have managed to fill in the majority of the information concerning the disc period but have found that the live cylinder period is almost completely barren in terms of matrix numbers and details of the recordings. Several sources may be used to reconstruct some of the information, and I am currently utilizing all that I can determine:

- 1) Cash Books maintained at the N.Y. Recording Studios from the time of opening in April 1904 through the end of recording in 1929.
- 2) A series of 3x5 cards prepared by Fred Rabenstein, who acted as paymaster at N.Y., which listed payments to the recording artists. These seem to be relatively complete through 1909, although additional information is present through 1914 or 15. The cards do not indicate the composition of the ever present choruses, although the cash books usually do.
- 3) Matrix cost studies (an incomplete file) and scattered copies throughout document files from late September 1912 through 1914. These list type of selection, the name of the artist, disc or cylinder, and name of selection. Using these along with the cash books can restore the day-to-day chronology.
- 4) Wendell Moore's reprints of The Edison Phonograph Monthly can often times give

the match between recording date and release title for the earlier (pre Fall 1912) material since the following pattern seems to have existed (at least in 1910 and on): The Phonograph Monthly would list a selection by the artist(s) in question two to two and a half months after the recording date. The Official release would then take place two to three months later.

- 5) Odd documents in the document files would sometimes yield other information such as the actual cylinder matrix numbers for the cylinders.
- 6) Artist cards maintained at the N.Y. Recording Studios and at the factory at West Orange. Neither set is complete as to artists, and each set often times has information unique to it. Little is available on the cards concerning the actual cylinder matrix numbers for the live period, although there are a few.

In transcribing the information contained on the 3x5 cards I found the following type of information. Four minute experiments were conducted as early as 1905 and 1906. In 1908 and 1909 there were experiments on an eight minute cylinder, and experimental records were made in that format by Sousa, Vecsey and Victor Herbert organizations. At the present we do not know if the length of recording time was achieved through fine grooving or through a longer or larger diameter cylinder.

Because many of the notes placed on the cards by Mr. Rabenstein represent new information, I am supplying the majority of them in the accompanying article.

ADVERTISING RECORD - Disc #2045, # 2060, #2061

ALLEN Mar. 22, 1912 Agree. for phono. services under weekly payments.

ARCHIMEDE Record announcer Foreign March 8, 1906, March 15, 1906, May 2, 1906.

ARGENTINE CHORUS (Marie Eissler, Rafael Rujol, Gracia Lopez, Miss Cardama) June 23, 1909 4 m.

ATZ, LOUIS Flute and piccolo. Newark, N.J. ca. 1900 - Member of studio orchestra also solos, duets, etc. with studio organization about 1900.

BAND - "Note: These bands were 'studio' organizations and varied in the number of men and the instrumentation varied according to selection. The name of band was determined by the nature of selection -- military or concert. They were musicians usually picked from available members of other bands, 'Sousa's', etc." BANTA, FRANK Piano accomp. and arrange(r). Played accompaniments for singers & made arrangements about 1895-96 to 1905 or 6 - (Died) BENZLER, ALBERT-- Bells, xylo(phone) & piano Card lists records from April 28, 1904 through April 16, 1908.

"Note: Albert Benzler was REGULAR Studio pianist. He also played bells, chimes and xylophone. He usually had selections prepared to fill in should an artist not appear or be in poor voice. These records were usually good standard sellers and could always be used to fill out a supplement."

BENZLER, Miss VIRGINIA -- Daughter of Albert Benzler. June 13, 1907 -- Experiment, June 21, 1907 -- Experiment.

BIELING, JOHN H. -- Tenor Was tenor in Quartet, Peerless Male - did little solo or duet work.

BACHMANN, pianist. "Played accompaniments for artists about 1898 till 1901 or 2."

BURCKHART, JOHN -- Bells, Piano Member of studio staff. Piano and also bell solos

CALVERT Boy used in recording April 22, 1909.

CHALIF, L Dance instructor October 12th, 1914 Disc#3343, 3346 Supervising new dance steps -- music by band.

CLARK, HELEN Contralto Marriage name "Price"

CORTINA, R. D. Announcer Opera Records March ? 1906, April 30, 1906, July 8, 1906 for Valdes Orc.

CROXTON (FRANK) TRIO (Agnes Kimball, Reed Miller, F. Croxton)

DAAB, CHARLES Xylophone and bells Under agreement July 2, 1910

DALHART, VERNON See also SLAUGHTER.

ECKE, FRED W. Arranger and conductor. "Paid a retainer of \$10.00 weekly for arranging. Conducted Bands, Orchestras, etc." EDISON QUARTET and CO. Vaudeville and Minstrels

Feb. 23, 1906 Harlan, Collins, Ossman (banjo), Murray, L. Spencer G. W. Johnson, H. Macdonough.

EXPERIMENTS "The 'experiments in 1906-07 were 4 minute - mostly - altho some were for other purposes."

FAATZ, ANNETTE E. Mar. 14, 1914 Disc. # 2853 Voice trial.. (see GRAPHIC issue 54, page 3)

GIAMMATTEO, ANTHONY clarinet 1912 "With studio orchestra & Band. Also solos, duets, etc."

GILLETTE, IRVING (Harry McClasky, Henry Burr)

GRIMSTEAD, STANLEY (Baritone - bass). See STANLEY, FRANK C.

HACKETT, ARTHUR (Brother of Charles Hackett) April 9, 1914 4 min.

HARLAN, BYRON G "Agreement made with Harlan. First payment April 10, 1907."

HEED, THOMAS -- Arranger "Band and Orchestra arrangements about 1898 to 1904 or 5. Arranger for Carl Fischer, Inc. N. Y. C."

HEIDELBERG QUARTET (Hooley, Bieling, Murray) July 12, 1912 4 min.

HENRICKS, GUSTAV (or HEINDRICKS?) Opera Conductor May 1, 1905, Oct. 22, 1906, Nov. 5, 1906, Apr. 19, 1909.

HASSELL accomp. for Gruppe. May 7, 1914 2 Discs

HIMMELREICH, FERDINAND Blind pianist Oct. 18, 1912 2067, 2068

HINRICKS Conductor Opera May 14, 1909 G.O., Dec. 8, 1909 G.O., Dec. 31, 1909 4 m. G. O.

JAUDAS, EUGENE A (Band, Orchestra and Venetian)
JOHNSON, GEORGE W. Dec. 16, 1904, Feb. 6, 1905.
JONES, ADA "Agreement made 1st pay April 18, 1907."
JONES, ADA and SPENCER, LEN "Note: The \$10.00 item for Spencer in connection with these dates is for authorship of the sketches and gave rights to use them on records. Agreement made - 1st payment April 18, 07."
KIMBALL, AGNES Soprano Also in Croxton Trio."
KOST piano accomp. for Kimmel Mar. 7, 1907.
KUDZUOKA, SOHIECHI Japanese Baritone
LIBBY, J. ALDRIDGE Tenor "Sang for records about 1902 and earlier."

MASONIC (Peerless Quartet and Band) Nov. 29, 1909, Dec. 4, 1909.
McCLASKY, HARRY See Gillette
McKINLEY, MABEL Soprano also composer. "Claimed to be related to President McKinley." Feb. 3, 1909, Feb. 8, 1909 (both 4 min.) Aug. 31, 1909
MEEKER, EDWARD "Record announcer and singer."
MEEKER, Miss (Ed's daughter) Aug. 31, 1907.
METROPOLITAN OPERA HOUSE CHORUS (SETTI, DIR.)
Dec. 19, 1910 Disc (14 @ \$8.00 each)
MINSTRELS -- Mar. 31, 1905 B. Murray, E. Meeker, L. Spencer, G. W. Johnson, H. Macdonough, S. H. Dudley, Edison Quartet;
June 12, 1907 Murray, Porter, Harlan, Geary, Meeker;
Oct. 3, 1908 4 m. Murray, Porter, Stanley, Anthony, Jones, Boys;
May 12, 1910 4 m.
MURRAY, BILLY "Agreement made - 1st pay April 18, 1907."
MUSICAL LESSON ON BACH May 26, 1914 Disc serial no. 3056
NEUMAN Pianist. Mar. ?, 1914 accom. for Samuel Gardner
NISBETT, H. N. (Harry Emmons) "Played chimes or bells"

OLIVOTTE TROUBADORS (M. Banneor, violin, Butin, Guitar
July 23, 1909 4m. 302
ORCHESTRA - "Note: These orchestras were built up from our regular 'Studio' accompanying orchestra. The accomp. orch. comprised usually of from 8 to 10 regulars. The inst. Orch. were from 12 to 18 or more -- according to the selection recorded. These extra men were selected from outside symphony orchestras Metro. Opera Orch and theatre orchestras. The names "Symphony" "Concert" "Standard" "Dance" were given to fit the class of selection recorded."

PARSOBS, JOE Basso June 3, 1912 4 m. "Still singing -- National Barn Dance Hour WJZ Sat. at 9 PM May 31, 1942."
PIPPINS, CYRUS Talking Name used by Byron G. Harlan for Rube talk."
PORTO RICO (Lopez, Santoni, Ramirez, Salmeron) April 8, 1909 4 min., Feb. 26, 1909 (duets)
PORTER, STEVE Talking, Character, Baritone "Note: For 'sketches' Porter was paid \$10.00 for phono. rights. Agreement made for first call on services -- 1st pay April 10, 1907. -- Flanagan series of stories."

RANDOLPH Quartet for funeral Feb. 20, 1908.
RING, JUSTIN Arranger and pianist at Studio Aug. 1, 1911.
RUHSAM, EDWARD F. Bells and Xylophone "Trap drummer in studio orchestra."

SCHOOL RECORDS -- Oct. 28, 1913 (Humphrey)
PREMIER QUARTET (Murray, Bieling, Porter, Hooley)

QUARTET, METROPOLITAN MIXED - Studio organization June 17, 1908 4 min.? 9/21, 1908 4 min. ?

RUJOL, RAFAEL June 23, 1909 Chorus Argentine records
SANTAGATA, BENJAMIN Tuba and string bass, Studio Orchestra Disc. ser. # 1263 (with String Quintette)
SELTZER, FRANK Cornet and Leader
SELTZER'S BAND (Frank Seltzer) - Week of April 11, 1904, Apr. 11, 1904, Apr. 18, 1904, May 6, 1904, July 6, 1904, Dec. 2, 1904
SETTI -- Chorus Director Met. Op. Co.
SHACKLETON, Lt. ERNEST H. Talk Arctic explorer April 6, 1910 4 min. My South Polar Expedition.
SEXTETTE -- Mar. 30, 1905 Floradora - Tell me pretty maiden 2m. 8260 Miss Morgan, Ada Jones, Miss Hornby, Bob Roberts, Jas. Harrison, F. Stanley.
SINCLAIR, EDITH See Mrs. E. M. Favor.
SLAUGHTER - 9/27/11 4 m. "This is probably first date for Dalhart (stage name) -- Slaughter was his family name."

SPENCER, LEN -- Note: For writing the sketches and recording rights Leen Spencer was paid \$10.00 extra. This \$10.00 appears as a separate item in cash book with entry of talent payment. -- F.J.R. (420622) "Agreement made 1st pay April 18, 1907."
SPENCER, Miss Myrtle "Daughter of Len. Worked in sketches with Len 1909-1910."
SPENCER, HENRY ("HANK") Brother of Len
SUETH, PAUL - Harpist "Harpist in Studio Orchestra also in Inst. Trio. Too place of Schuetze."
SWEET, AL Cornet and Band Director "Conducted for early bands, etc. & solos about 1900 to 1903 or 04. Gave up phono work to conduct Band for Circus."
TANARA Opera Conductor April 12, 1911, Dec. 28, 1911.

TRIO, METROPOLITAN June 18, 1908 4 min.? Studio organization.
TUNING RECORD Disc. # 838 (Clarinets for tuning); 860, 3342
TUSON, WILLIAM "Tuson regular clarinet in studio orchestra -- always had a solo ready in case a singer was in poor voice."
VAN DER VEER, NEVADA Mrs. Reed Miller.
VAUDEVILLE COMPANY July 17, 1907 (Porter, Harlan, Murray, Meeker, Jaudas (violin)); Dec. 30, 1908 - 4 min. (Porter, Favor, Rossmore, Madison)
VINCENT, Bishop Dec. 3, 1913 Chatauqua Idea

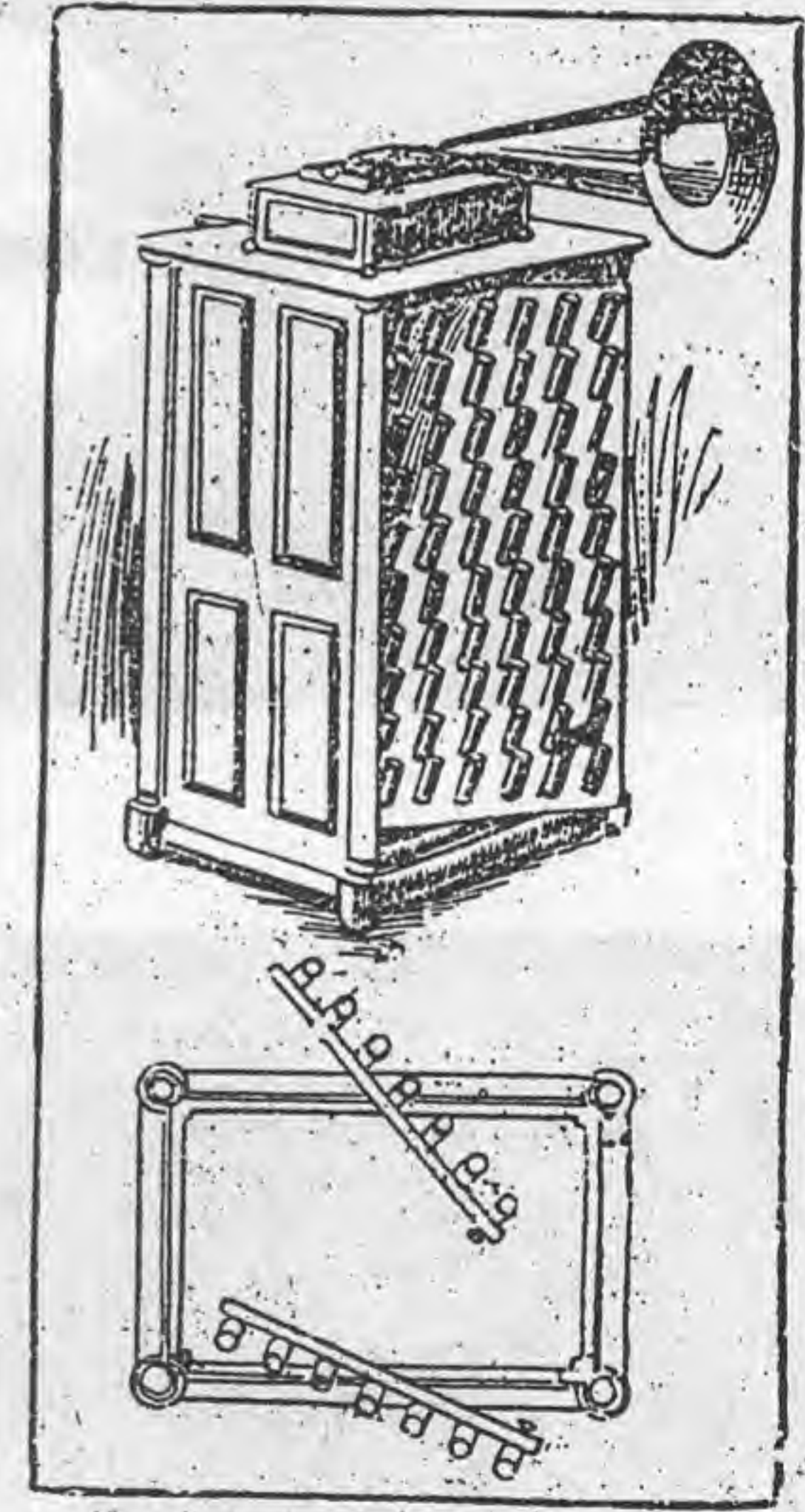
VOSS, ANDREW Trombone Son of Fred Voss "Played in bands and orchestras but not regularly - 1902 on."
VOSS, FRED -- Director of 1st Regt. N. J. N. G. Band Prior to 1902 - 1904 -- After moving to N. Y. we did not have him."
WILDER, MARSHALL P July 29th to August 3, 1908 ? Recorded Atlantic City.
WRIXON, HARRY Studio office boy used in records for cheers, etc. Oct. 24, 1907.

(My thanks to the Edison National Historic Site and in particular to Doug Tarr and George Tsalos for their assistance and encouragement of my research projects.)

An unusual cylinder cabinet design, from the October 24, 1904 London (Ontario) Free Press, furnished by Jim Tennyson. Although unique, the design probably never went into commercial production--it wastes too much space and requires both front and back sides to be accessible. Apologies for the quality and the copy writer's run-on sentences!

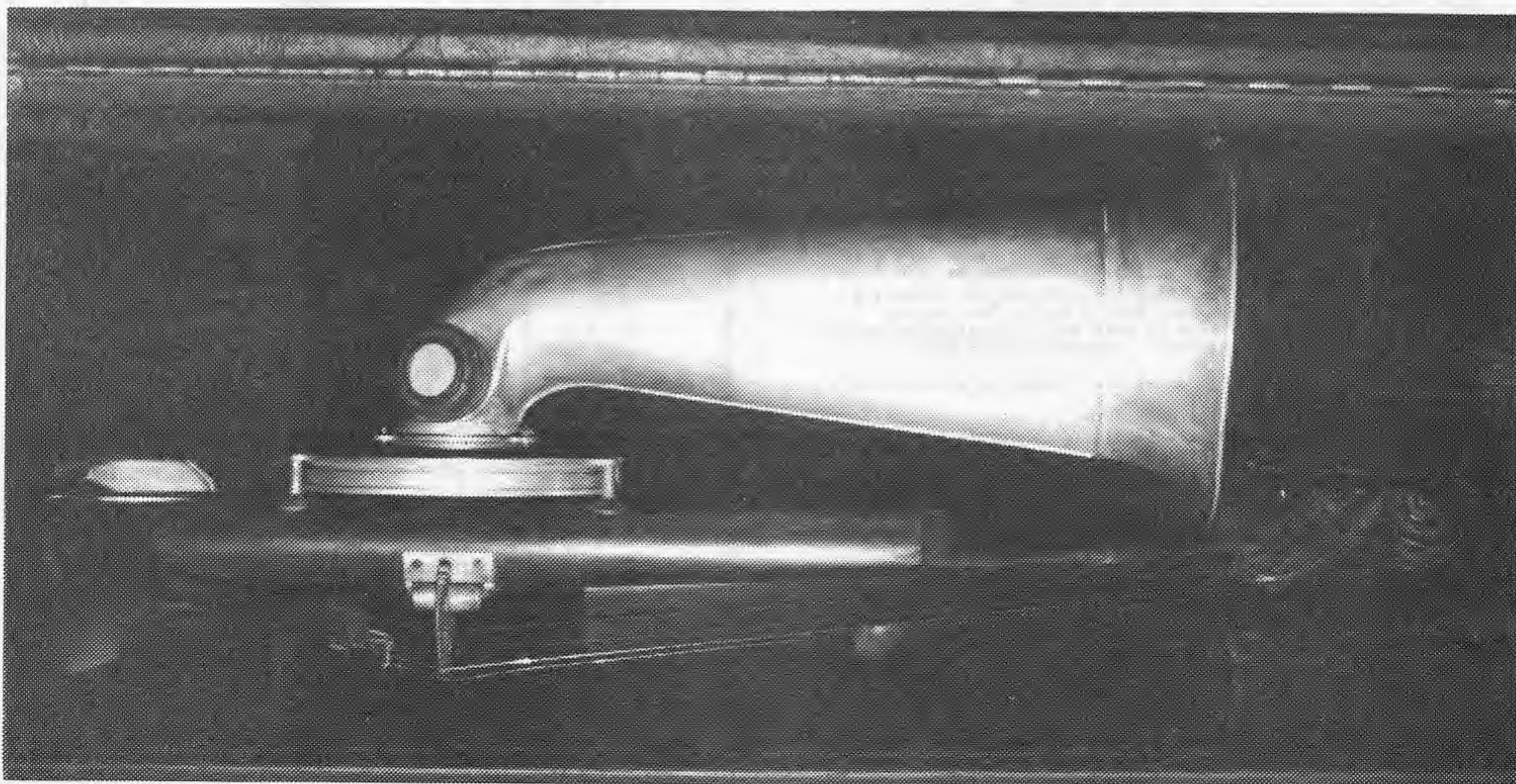
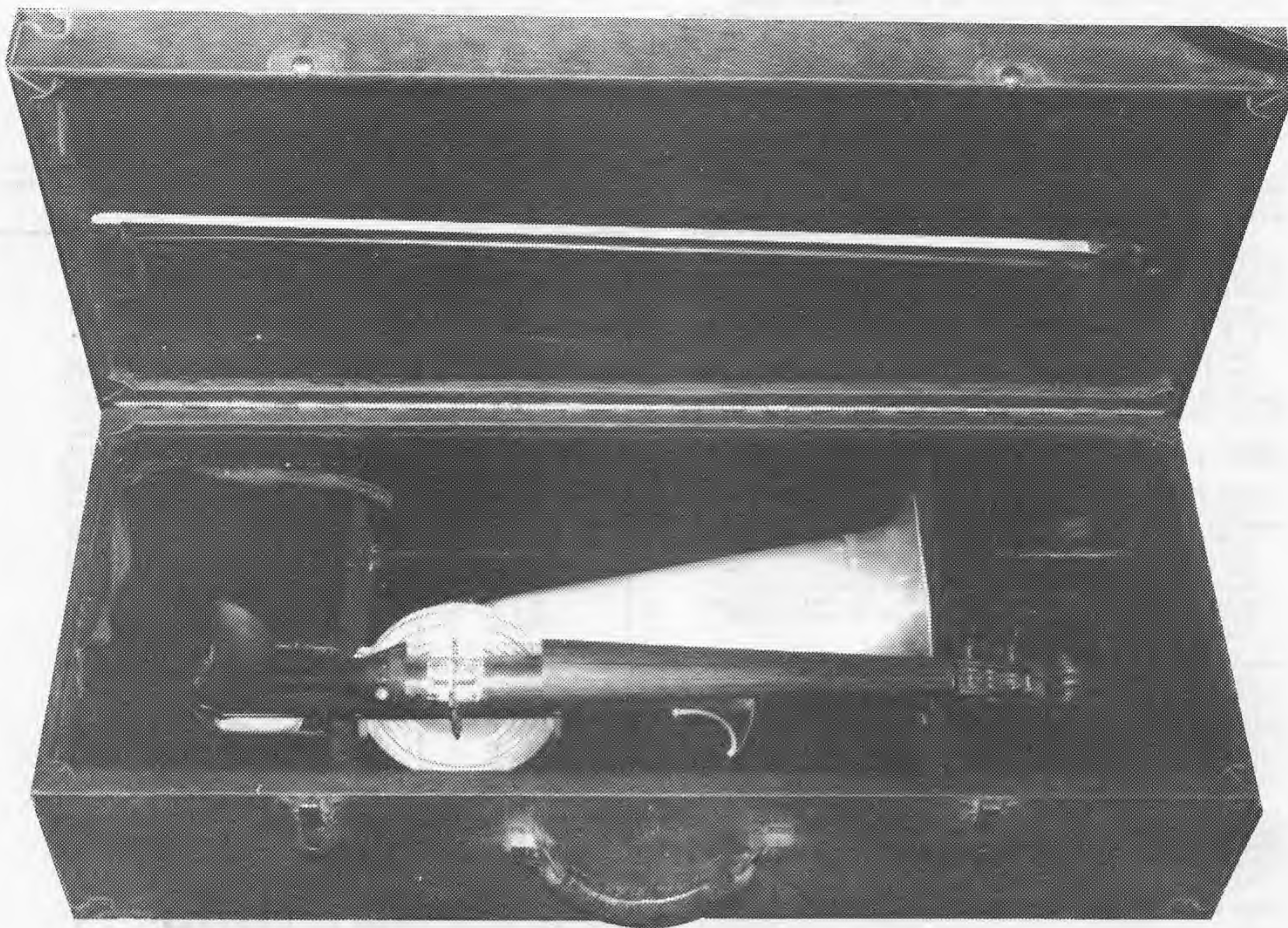
Phonographic Record Cabinet.

Phonographic records are not only very fragile and delicate, but must be stored carefully and handled with caution when placing them on the cylinder of the machine and removing them therefrom, and the disposition of these waxed tubes is always a matter of concern to the owner of the phonographic outfit. The method of storing them in boxes has the inconvenient feature that when one particular record is being searched for, it is necessary to go through one box after



Phonographic Record Cabinet.

another. With the cabinet, which is shown in the accompanying cut, and which has been recently invented, a means is not only offered for the storage of a great number of records, but also makes a very convenient stand for the instrument. It will be readily seen that the sides of the cabinet, revolving on a pivot at the top and bottom and fitted with pegs on the inside, offer facilities for accommodating a great number of records and all of them in plain view. It is designated that the name and character of the record shall be placed on the top of the pin and in this manner it will be possible to recognize each one at a glance.



PHONOGRAPH FORUM

by George Paul

The Stroh Recording Violin

"The amateur will do well to avoid the sorrow that is almost inevitable in attempting to make a record of a high tenor, a soprano, or a violin." So admonished the National Phonograph Co. in its 1900 publication of The Phonograph and How to Use It. The difficulty, as seen from our vantage point, was twofold: the delicacy of high-frequency waveforms, and the early talking machine's inability to reproduce them. Professional recording techniques as practiced by Berliner/Victor, Edison, and American Graphophone allowed for the more-or-less successful capturing of a tenor or soprano on record, yet the sound of the violin remained elusive. For many years, early recording engineers were working feverishly to improve their technique and equipment. Yet it remained for one man, Charles Augustus Stroh, to modify the violin itself in order that its sweet song might finally be preserved.

The Stroh violin is a deceptively simple device. The typical body or cabinet of the violin has been replaced with a large diaphragm mounted beneath and parallel to the strings. This diaphragm is attached via a cord (as in an Edison Diamond Disc reproducer) to the bridge of the instrument. The cord is taut; the diaphragm distended under a slight pull. The vibration of the strings is transmitted to the bridge, through the taut cord, and to the large diaphragm. Once the sound has left the diaphragm, it is channeled through a rubber tube or the aluminum horn.

The first Victor recordings made with the Stroh violin occurred on April 23, 1904. On that day Charles D'Almaine recorded "Military Serenade," "Donkey and Driver," "Andantino," and "Favorite Hymns" (Victor record numbers 2828, 2770, 2920 & 2804, respectively). In the Victor Record classified catalog of October 1905 (p. 34), there was a special listing of "Viol-Horn Solos" by Charles D'Almaine. The device which we now know as the Stroh violin was described as "An entirely new instrument, the first of which has been brought to this country by us. The tone of the Viol-Horn is very like that of the violin but much louder."¹.

Victor Company legend has it that there were six of these instruments used by their studios. This particular instrument was found in 1928 by a Victor employee in a basement somewhere in the Victor complex. It was purchased from him some years ago by Norm and Janyne Smith, to whom we offer our thanks.

The Stroh violin, or Viol-Horn as Victor would have it, was rendered obsolete by the advent of electrical recording in the mid-1920s. As an instrument, it is but a footnote in music history, yet as an instrument with such a short life and specific application, it must be considered unique.

1. Fagan and Moran: The Encyclopedic Discography of Victor Recordings, Matrix Series: 1 through 4999. Greenwood Press, 1986.

(Editor's note: Some years ago I saw an interview with a French-Canadian fiddler, whose prized instrument was a Stroh violin; so it seems evident that the Stroh had some other applications -- in this case to be clearly heard at large public dances. See a Stroh clearly pictured in the foreground of the Encyclopaedia Britannica article reprinted on pages 13-17 of this issue.)

George Paul can be contacted at: 126 South Main St., Mt. Morris, NY 14510.

Illustrations

Top: The Stroh Recording Violin in its case.

Bottom: Note the provision for a rubber tube at the base of the horn. (In the Encyclopaedia Britannica top photo, the violin player in the foreground is evidently using such a connection to monitor his own playing -- much the same way headsets are utilized in modern recording sessions!) (see page 15)

= Photographs are courtesy of Norm & Janyne Smith =

Telephony

THE AMERICAN TELEPHONE JOURNAL

Comprising Telephony, American Telephone Journal, Sound Waves, Telephone Magazine and The Telephone
Vol. XVIII CHICAGO, SATURDAY, DECEMBER 18, 1909 No. 25

Distributing Music Over Telephone Lines

Now here's a unique idea from the pages of the December 18, 1909 issue of Telephony magazine...phonograph music over the telephone. What won't they think of next? Notice the ladies attending a bank of disc machines (probably Victors, minus horns) in the photo on the bottom of page 9, along with several racks of records stored below. At 3¢ per selection, it hardly paid the subscribers to actually own records!

Also notice the morning glory horn connected to the "box" in a subscriber's home. Finally, did the operators at the bottom of page 8 actually get to hear music on the job via the overhead horn? If so, this surely must be the earliest example of Muzak in the office!

Thanks go to Bill Bryant for supplying the original article, as well as to Kathy Donnelly for getting as much as possible from the original dark illustrations.

(see next three pages)

San Francisco Chronicle

November 14, 1991

(from reader Bill Knorp)

Communications: Then and Now

A 19th century recording that has been stored in London since 1929 contains 14 seconds of a



Queen Victoria:
Something to say.

voice thought to be that of Queen Victoria. The recording is on a fragile, wax-coated cardboard cylinder played on an early recording machine called a Graphophone. Only nine of 40 words spoken were clearly recognizable: "Greetings... the answer must be... I have never forgotten"... Hiker

Walter Roden used a cellular phone he had in his backpack to call for help this week after making a wrong turn in the San Gabriel Mountains. Authorities started a search, and Roden reached a ranger station safely.

Distributing Music Over Telephone Lines

Wilmington, Delaware, is enjoying a novel service through the telephone exchange. Phonograph music is supplied over the wires to those subscribers who sign up for the service. Attached to the wall near the telephone is a box containing a special receiver, adapted to throw out a large volume of sound into the room. A megaphone may be attached whenever service is to be given. The box is attached to the line wires by a bridged tap from the line circuit. At the central office, the lines of musical subscribers are tapped to a manual board attended by an operator. A number of phonographs are available, and a representative assortment of records kept on hand.

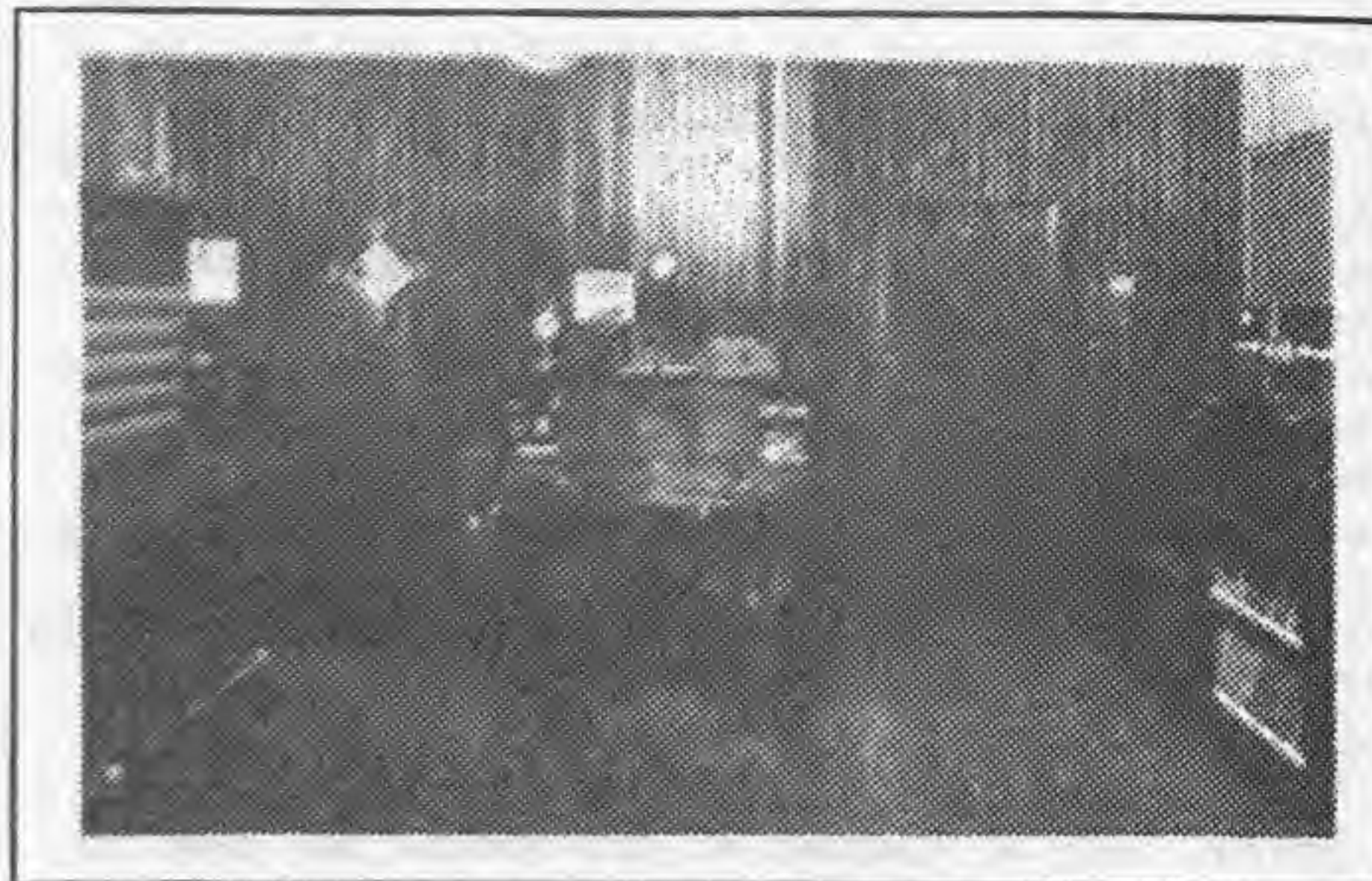
When plugged up to a phonograph the subscriber's line is automatically made busy on the automatic switches with which the Wilmington exchange is equipped. Several lines can be connected to the same machine at the same time, if more than one happens to call for the same selection.

Each musical subscriber is supplied with a special directory giving names and numbers of records, and the call number of the music department. When it is desired to entertain a party of friends, the user calls the music department and requests that a certain number be played. He releases and proceeds to fix the megaphone in position. At the same time the music operator plugs up a free phonograph to his line, slips on the record and starts the machine. At the conclusion of the piece the connection is pulled down, unless more performances have been requested.

The rate of charge for this service is very reasonable. It is three cents for each ordinary piece, and seven cents for grand opera. The subscriber must guarantee \$18 per year.

In most cases the actual amount of music used makes that revenue greater than the regular telephone rent.

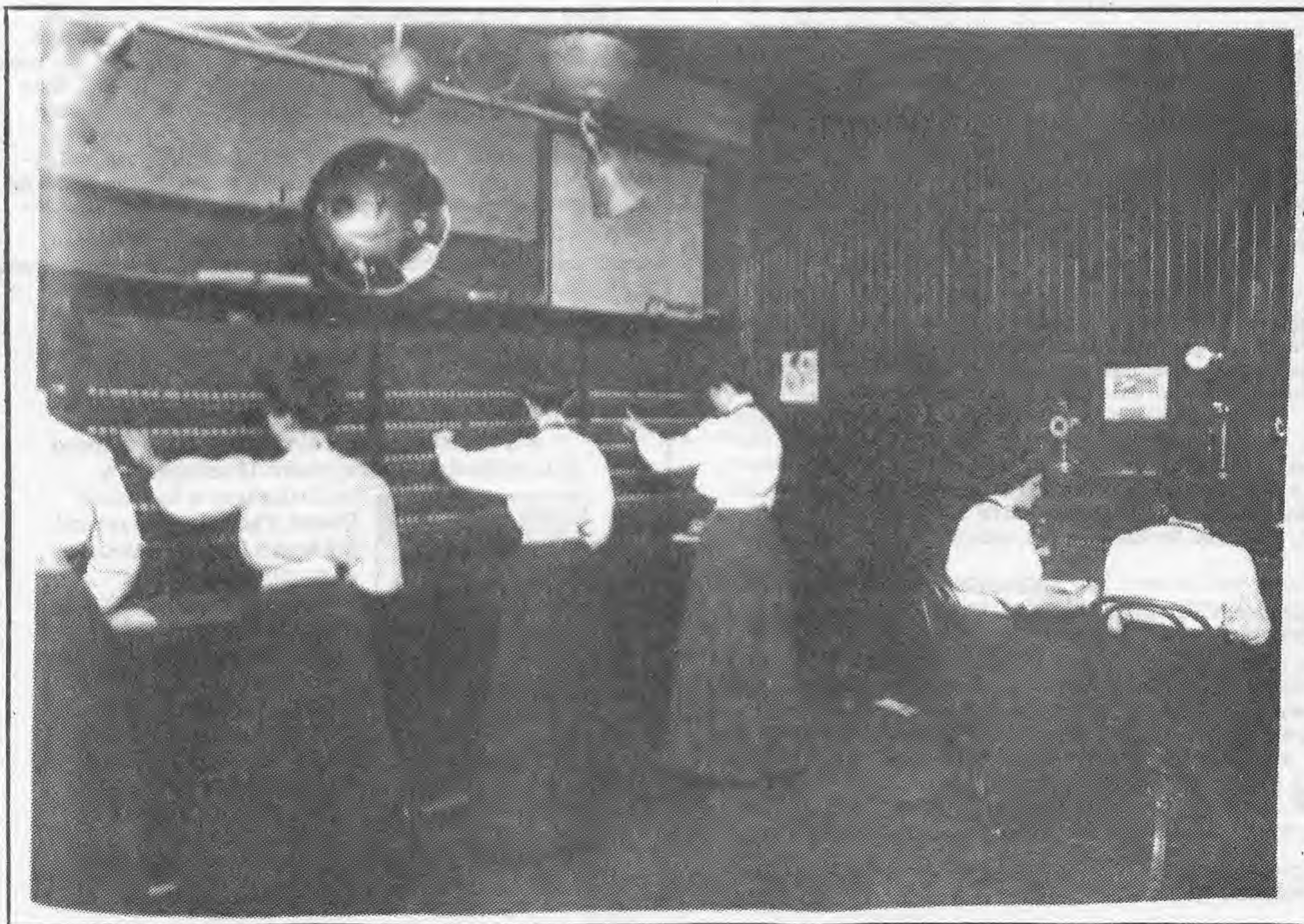
The working of the system attracted much attention at the International convention in Chicago last week, where it was exhibited by the Tel-musici Company, which has its head-



Front View of the Wilmington "Music Room."

quarters in the Hoen Bldg., Baltimore, Md. Mr. Geo. R. Webb is president of the company, and Mr. J. J. Comer the general manager, had a very fine working exhibit in the Auditorium Annex.

This proposition, which has taken some years of time and patient study to develop, appears to have at last been brought to the point where it can now be employed for practical pur-



Left-Hand Side of "Music Room" in the Telephone Exchange at Wilmington, Delaware.

poses by telephone companies generally. The more important features of this proposition are briefly stated as follows:

At the central telephone office is kept a supply of phonographic records, embracing a complete line of all the latest productions.

By turning a switch, operators can throw any subscriber who



Tel-Musici Installation in a Subscriber's Home.

may call for music over onto the music board which is divided in two sections—one for a general program, the other for special selections, the latter coming a little higher. A subscriber, who merely calls for "music," is thrown onto the general board, where the regular program for the week or month is furnished.

In addition to this, pay stations are installed in restaurants, cafes, hotels and other public places, where selections can be obtained by depositing a coin in the box.

At Wilmington, Del., where this proposition has been carefully developed, under the supervision of Messrs. Webb and Comer, there are now eighty residence subscribers taking this musical service regularly, while something like forty pay-stations are installed. During the past year, there has been a gain in the patronage of the musical service, without the loss of a single subscriber.

The returns from residence stations run from fifteen to twenty cents per day, while pay stations have averaged as high as \$10 in a week. On the whole, it has been estimated by its introducers that the service will pay local telephone companies from thirty to thirty-five per cent on their investment.

In addition to the direct returns it is believed the musical feature tends strongly to popularize the service of those companies, which furnish it to their subscribers. For instance, in the various localities of the United States where there are competitive telephone companies, it is claimed that the company which provides its patrons with the Tel-musici feature will not only be the one which will have a good paying by-product, not enjoyed by the other company, but will have a very strong inducement to offer for securing new subscribers, as well as holding old ones.

It must not be imagined from the superficial description of this proposition herewith, that this service is merely a reproduction of phonographic records. The apparatus perfected by the Tel-musici Company not only greatly intensifies and enlarges the volume of sound of all phonographic records but eliminates the metallic, rasping and grating features which have heretofore constituted an objectionable feature of phonographic concerts. As a matter of fact, the music, as reproduced over telephone lines by means of the Tel-musici apparatus, possesses a sweetness and an almost-human quality not hitherto to be found in any kind of mechanical music.

Much of the success of the system is due to the unique and



Right-Hand Side of Wilmington Music Room.

remarkable loud speaking transmitter developed by Mr. Comer.

Another feature of the Tel-musici service, which will be appreciated as a strong point in its favor, is the fact that the cost of the original installation is very low and that the special receiver and horn attached to it can be mounted in any room however remote from the telephone itself, thus enabling the subscriber to place it where it will be least conspicuous and in the way. It will also be appreciated that another point which appeals strongly to prospective subscribers is the fact that no initial expense is necessary on his part and that all

he has to do in order to have the most entertaining of music, while at the same time without venturing out into cold or inclement weather, is to merely step to his telephone and notify the central office.

It is reported that the Tel-musici Company is preparing for a thorough campaign to introduce its system among the telephone companies of the United States and that it will very soon establish a Chicago agency to co-operate with its Eastern offices in the placing of its musical and other apparatus properly before the public.

Broome Records: A Follow-Up

by Don Wetzell

(Editor's note: Tim Brooks' article in our last issue on this obscure record label revealed that it was probably the first black-owned business of its type. Don Wetzell follows up with an addition to Tim's discography, plus a fascinating tale of pursuit.)

I so much enjoyed the article on the Broome Record Co. of Medford, Mass. Yes, I have one of them and have seen more. The one I own is illustrated below. Since the matrixes do not show, let me inform you of them: Record #55, R. Nathaniel Dett, piano solo - "Mammy" from "The Magnolia Suite," matrix #86-1-1; side 2: Florence Cole-Talbert singing "Nobody Knows de Trouble I've Seen" (C.C. White), matrix #34-2-1. This has the brown label with black printing as Tim described.



I have also seen a couple with blue printing on white labels years ago; I think they were of Cole-Talbert. I've never seen pressings quite like it, pretty much as you describe. I got it in Massachusetts when I was a young man, probably in a Salvation Army store. My copy is quite worn through much playing or bad needles on the Cole-Talbert side, but plays pretty well on the Dett. The record has an edge chip not affecting play. At the moment, I have no plans to sell it. I am sympathetic to such a record being in a proper place for its historic importance.

An exciting addition to my tale is something I saw about 35 years ago. In the first decade of my work for The Bible Study Hour in downtown Philadelphia,

I visited a black music store in nearby South Philadelphia which seemed to feature mostly "gospel" music, sheet music, and some records. There were hundreds of Broome records in racks there then, about the mid-fifties. About 20 years later, I stopped in again, then realizing that I might like to purchase a few, but they were all gone; just sheet music this time.

Yesterday (11-15-91), I revisited that store, and found an oriental-owned dry cleaning store. They knew nothing about the former store owners...so, a disappointment. When I came out the front door, I saw an African A.M.E. church on the nearby corner that had been there for generations. I rang their doorbell and found only a janitor there. I'll try again. Surely some of the senior citizens in that church did business at that store. From the church, I looked down three buildings to see the office of a black newspaper. There was no one there then to talk to me, but I have the names of their staff that might be interested in drumming up interest in this part of black history. I'll let you know if I can find some more of those records or anything about them. I hope we can fill in some of the gaps in the discography. It's a good beginning. Now, let's see if the alumni of readers can fill in the story.

Don Wetzell announces that he is now 80% retired from his religious broadcasting work. He can be contacted at P.O. Box 130, Barrington, NJ 08007.

HERE & THERE

Mike Biel tells us there are similar contemporary articles to the one we ran about Robert Vincent in the last issue, and they may be available in larger libraries. Readers may want to look up *Popular Science*, December 1939 (pp. 94-96) and *Newsweek*, August 31, 1942 (pp. 58-59). Mike, by the way, recently appeared on C-SPAN, supplying and commenting on the only available recordings of the debate in the House of Representatives following President Roosevelt's declaration of war on Dec. 8, 1941.

Tom Hawthorn reminds us that some of Vincent's work was made commercially available on his "National Vocarium" label of the 1940s, and he wonders what became of his fabulous collection of rare recordings.

Our editorials in recent issues have drawn several comments--most of them favorable. And no, we have not received a speeding ticket recently!

Fans of vintage cornet music may be interested to know more about Patricia Backhaus's portrayal of "Miss Helen May Butler: The Female Sousa," and are invited to contact Dr. Backhaus at P.O. Box 2092, Waukesha, WI 53187 for more information. A recording is contemplated.

The tally on our article on the repressings of Blue Amberol #4130 (see p. 3, last issue) currently stands as follows: repressings-2, originals-4. But we feel there have got to be more repressed copies out there,

(cont. on page 18, bottom right)

Curiosity

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"Just When You Think
You've Seen Everything!"

This winter's Curiosity Corner illustrates two unusual records from the collections of two of our Vermont friends.

When Ed Dubois spotted this Okeh, he couldn't believe his eyes. Not only is the label green, but so is the record. The pressing is circa 1934 and bears the last style Okeh label design to be used before being withdrawn in 1935. Although credited to the Columbia Phonograph Co., Okeh was by this time just another American Record Co. subsidiary.



In order to boost sagging sales with something "new," Columbia introduced its Royal Blue pressings late in 1932. Colored shellac pressings were nothing new...American Vitaphone had done it some three decades earlier. While attractive in appearance, this new gimmick did not help Columbia's balance sheet, and the records are uncommon today.

Someone must have gotten the bright idea to adapt the colored pressings to Okeh, and they chose green for the Irish series. This one, incidentally, uses Columbia masters by O'Leary's Irish Minstrels dating from 1926.

The process of coloring is identical to Columbia's, in that the coloring itself does not go throughout the entire record, as with previous colored pressings (such as American, Vocalion, Perfect, Paramount, etc.). Traces of black can still be seen around the edges and along the rim, and are visible at the top and bottom of our illustration. The label, incidentally, had to be shot separately, so it appears darker in our illustration than it otherwise would.



Two questions remain: 1) Did Okeh have a name for these records? (Somehow "Royal Green" doesn't quite do it!) 2) Did Columbia-Okeh use any other colors at this time?

In any event, if the Columbia Royal Blues are considered "uncommon," these green Okehs must be thought of as downright scarce!

The only thing on Glen Gurwit's circa 1905 Victor record that looks "normal" is the notice sticker pressed on the back. Otherwise, the semi-circular name and company credits, the depiction of a Victor "Monarch" instead of a trademark model, and the black print on light blue paper all make this look more like some Cantonese forgery! And to make matters even more complicated, the master was recorded by Victor's Zon-O-Phone subsidiary!

Victor had several different label designs; in addition to commercial variations, there were experimental labels, sample labels, and labels designed for various internal purposes. While most of what we see today are the standard varieties, many of the odder designs are in Michael Sherman's guide The Paper Dog. An expanded version of this booklet is in the works, and several additions are promised.



FAMOUS RADIO BROADCASTERS

Cunningham
RADIO TUBESFor Perfect
Reception© PRATT & FLORENCE, INC. N.Y.
Photo by Sam Lubell

"ROXXY'S GANG"

Broadcasting From The Roxy Theatre, New York.

JOHN J. KEATING	EDWIN ZIMMERMAN	JOHN YOUNG	GEORGE REARDON	FREDK THOMAS	BERNARD P. ADAMS	LEO RUSOTTO	DOUGLAS B. MURRAY	LEW WHITE	JOSEPH STOPAK
ALDO BOMONTE "BOMBY"	HARRY BREUER	CHARLES PREVIN	DOUGLAS STANBURY	MILDRED HUNT	"ROXY"	GLADYS RICE	ERNO RAPEE	MILTON CROSS	VIOLA PHILO
HAROLD KRAVITT	HELEN ARDELLE	DOROTHY MILLER	FREDERICK FRADKIN	BEATRICE BELKIN	HENRY NOSCO	YASHA BUNCHUK	JOSEPH LITTAU		

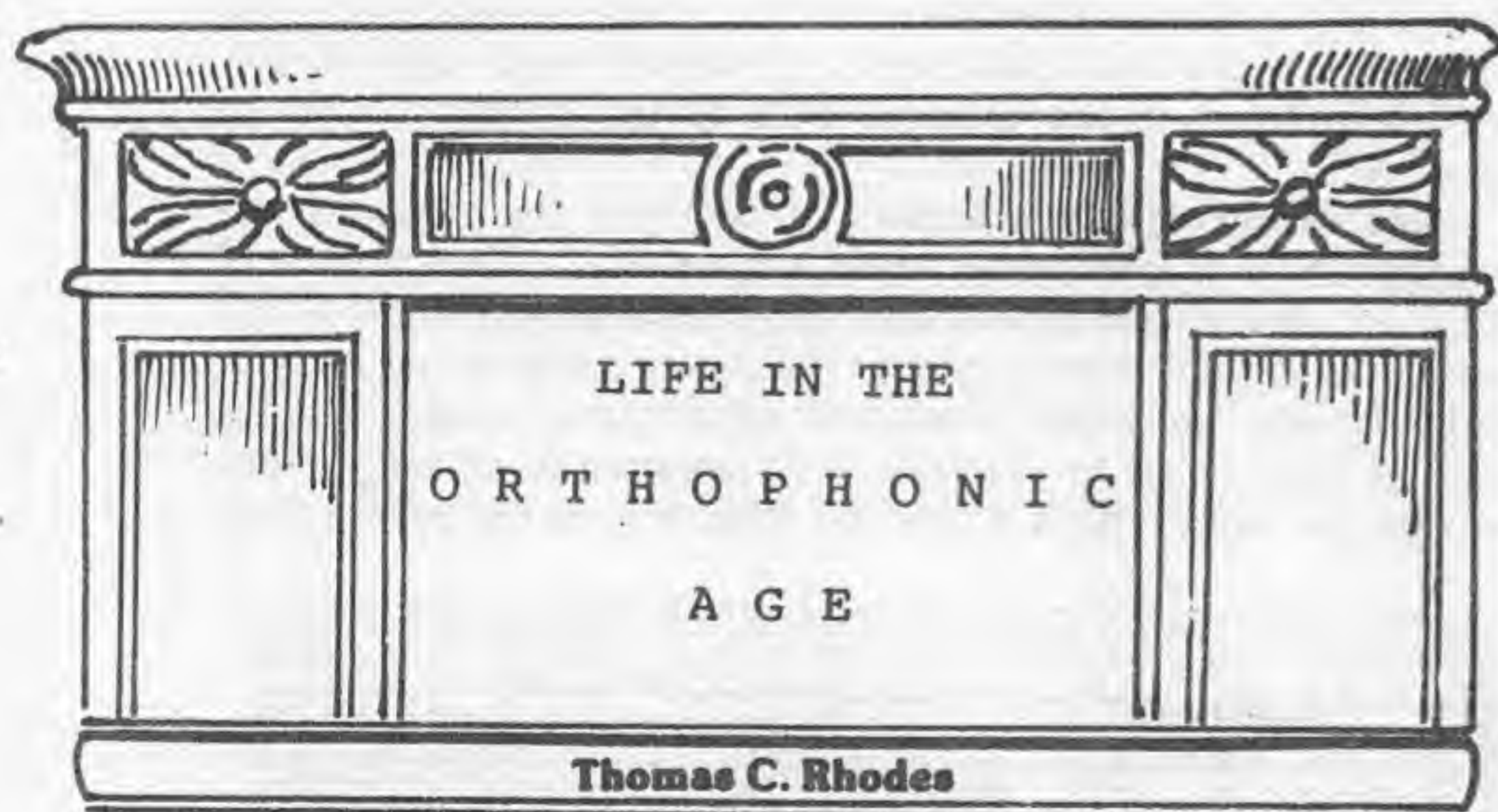
FORM NO. 800-A

Roxy's Gang — A Contest!

The interesting photo at the right (circa 1930) comes to us from Steve Ramm, and it contains a number of performers who did some recording work. How many can you identify? We've decided to make this into a little contest...something to tax your collecting knowledge and to add a little excitement to those of you suffering from mid-winter cabin fever. Here are the rules:

1. Name as many artists as you can who made recordings. For each artist named you must give a label or company name he or she recorded for. Recordings can only be of the commercial type meant for homes...no radio transcriptions or Vitaphone soundtracks!
2. All readers of the GRAPHIC are eligible.
3. Entries may not be postmarked before February 24th (giving all subscribers in North America equal chance to receive their issues).
4. Entries must be postmarked by March 31st.
5. Winner will be determined by the largest number of correct identifications. In case of tie, earliest postmark wins. Editor reserves the right to verify identifications if deemed necessary.
6. Winning entry will be announced in the next issue. Winner will receive a copy of the book A View from the Kingdom — a lovely photo-essay hard cover book on life in our northeast corner of Vermont.

Good luck to all participants!



Editor's Note: We take a departure this time and present a "period piece" on the Orthophonic, written by J. P. Maxfield of the Bell Telephone Laboratories for the 13th edition of the Encyclopaedia Britannica, 1926. Although quite technical in nature (how the E.B. loves to publish charts and mathematical formulas which most of us laymen find bewildering!), it shows that the art of recording was at last being considered a science. The reproduction system described, including the sound box diagram shown, is clearly that of the Victor Orthophonic. We are indebted to Art Faner of Salem, Oregon for supplying this material.

PHONOGRAPH (see 21.467).—The progress which has been made since 1910 in phonographic reproduction of sounds has resulted in two chief improvements. First, notes of speech or music, which formerly presented great differences in their degrees of reproducibility, may now be reproduced with such evenness and impartiality that the ear can scarcely detect any difference between the effectiveness of reproduction of one note and that of another. Secondly, the range of notes which may be effectively reproduced has been extended from about $3\frac{1}{2}$ octaves to approximately $5\frac{1}{2}$, nearly $1\frac{1}{2}$ octaves being added at the lower end of the scale and about $\frac{1}{2}$ octave at the higher end.

Effects of Electrical Recording.—These improvements were effected chiefly through the substitution, for the former mechanical linkage, of an electrical linkage between the diaphragm receiving the initial sound waves and the stylus recording their equivalents on the wax record. This electrical linkage consists of a vacuum tube amplifier and associated circuits, its purpose being to increase the power delivered by the transmitter whose diaphragm receives the initial sound. This increased power is used for operating the recording stylus. It is, therefore, no longer necessary to design the receiving diaphragm and the mechanism for driving the recording stylus with a view to their sensitivity; instead, the objective is to ensure that they follow, with maximum faithfulness, the vibrations of the initial sound waves. The above applies to the making of records in large auditoriums, as well as in the studio.

Reproduction.—Progress has likewise been made in the reproducing of the sound from the records. The vacuum tube amplifier (see **AMPLIFIERS**) may be used also in the linkage between the device operated by the needle following the grooves of the record and the diaphragm creating the sound waves for the listeners' ears. The sound may thus, if desirable, be greatly magnified. In the home, however, where this magnification is not necessary, a mechanical reproducing system in which great improvements have also been effected, is sufficient and simpler.

Material.—Another major improvement concerns the material and manufacture of the finished record, whereby the surface noise or "roar" has been materially reduced. In some cases this has been effected by laminating the record, the body consisting of a cheap, hard material to which adheres paper coated with the high-grade grooved material.

Result of New Methods.—By reason of the improved methods of making the records, the artists are now free to perform in a more natural manner than formerly, and at such a distance from the "pick-up" device that the normal reverberations from the studio walls may be duplicated in the recorded sound.

Figs. 1 and 2 on plate show, respectively, a group of artists recording by the old method and the same group recording by means of the electric process. It will be noticed in fig. 1 that the artists were grouped very closely about the horn. Only two of the violins were of standard construction, the rest being of the type known as the "Stroh," strung in the manner of a violin but so arranged that the bridge vibrates a diaphragm attached to a horn. This horn was directed toward the recording horn, as shown by the player in the foreground. With such an arrangement of musicians, it was very difficult to arouse the spontaneous enthusiasm which is necessary for the production of really artistic music.

In fig. 2 the musicians are sitting at ease more nearly in their usual arrangement, and all are using the instruments which they would use were they playing at a concert. Furthermore, the pick-up device is now sufficiently far away from the orchestra to receive the sound in much the manner that the ears of a listener in the audience would receive it. In other words, it picks up the sound after it has been properly blended with the reflections from the walls of the room. It is in this way that the so-called "atmosphere" or "room-tone" is obtained.

Effective Limits.—The range of effective sound reproduction has now been increased virtually to the limits inherent in the material from which records are made. The limit at the lower end is fixed by the fact that a very low frequency note will cause the recording needle to cut from one groove into an adjacent one

PHONOGRAPH

(or, in a vertical cut, will penetrate so deeply as to tear the wax instead of cutting away with a clean surface), while, at the upper end, it is fixed by the cuts in the record becoming so fine and sharp that the reproducing needle will not follow them. The increase in effective range of notes recordable by the new process has resulted in the virtual elimination of metallic tones, characteristic of the earlier phonographs, and of the muffled quality of higher notes, provided the reproducing machine covers a similar range. The sibilants, also, which failed formerly to make themselves heard, may now be reproduced naturally.

The latter two improvements are due to the accurate recording and reproducing of the higher harmonics, vibration frequencies

cycles per sec. ($1\frac{1}{2}$ octaves above the lowest note on the piano-forte), the result has gained remarkably in naturalness.

Recording Methods.—Fig. 1, a diagrammatic sketch of one of the recording instruments and of the equivalent electric circuit, shows the manner in which the recording needle is controlled in response to the voltage fluctuations set up by the sound-receiving diaphragm. This instrument is a mechanical filter of the low pass type, providing the two undesignated condensers are omitted. In this particular case the filter has three sections and a terminating resistance. In designing mechanical analogues of such a system, the problem presented is threefold: first, that of arranging the parts so that they form repeated filter sections; second, determining the magnitudes of these parts so that the separate sections all have the same characteristics; third, providing the proper resistance termination. The necessity of meeting these three conditions simultaneously probably prevented the solution of this problem by cut-and-try (non-scientific) methods. The credit for the use and design of such mechanical analogues for this purpose is due in large part to H. C. Harrison.

Such a filter when properly designed will secure a sensitiveness at the various pitches represented by curve A in fig. 2. The actual recorder, however, owing to the presence of the two undesignated condensers shown in fig. 1, has a loss of response at the low pitch end as indicated by curve B (fig. 2). This loss is unfortunately necessary in order to avoid the large amplitudes which accompany the low pitched notes and which would cause the trace on the record to cut from one groove over into its neighbour.

Systems Employed.—Many early attempts were made to design mechanical transmission systems having a wide frequency range in which highly damped single or multi-resonant systems were employed. In these attempts both of the obvious methods of increasing the damping were used, namely, that of adding a resistance to the system and that of increasing the value of the compliance and decreasing mass in such proportion as to maintain the same natural frequency. The results of these two methods are shown in fig. 3. The former reduces the sensitivity of the system at the point where it is most efficient (curve B as compared with curve A, which represents the response of the singly resonant system chosen for illustration). The second method increases the response at the points where the system is less sensitive, namely, away from its resonance point (curve C, as compared with curve A). Curve D represents the response when a band pass type of system is used whose resistance impedance is the same as that of the system shown in curve A.

Some of the earlier attempts to improve the range of reproduction employed multi-resonant systems. The results of the filter theory have shown how these resonances should be coordinated so that, when a proper resistance termination is used, high efficiency and equal sensitivity are obtained over a definite band of frequencies by elimination of response to all frequencies outside the band. With either the electrical or the mechanical

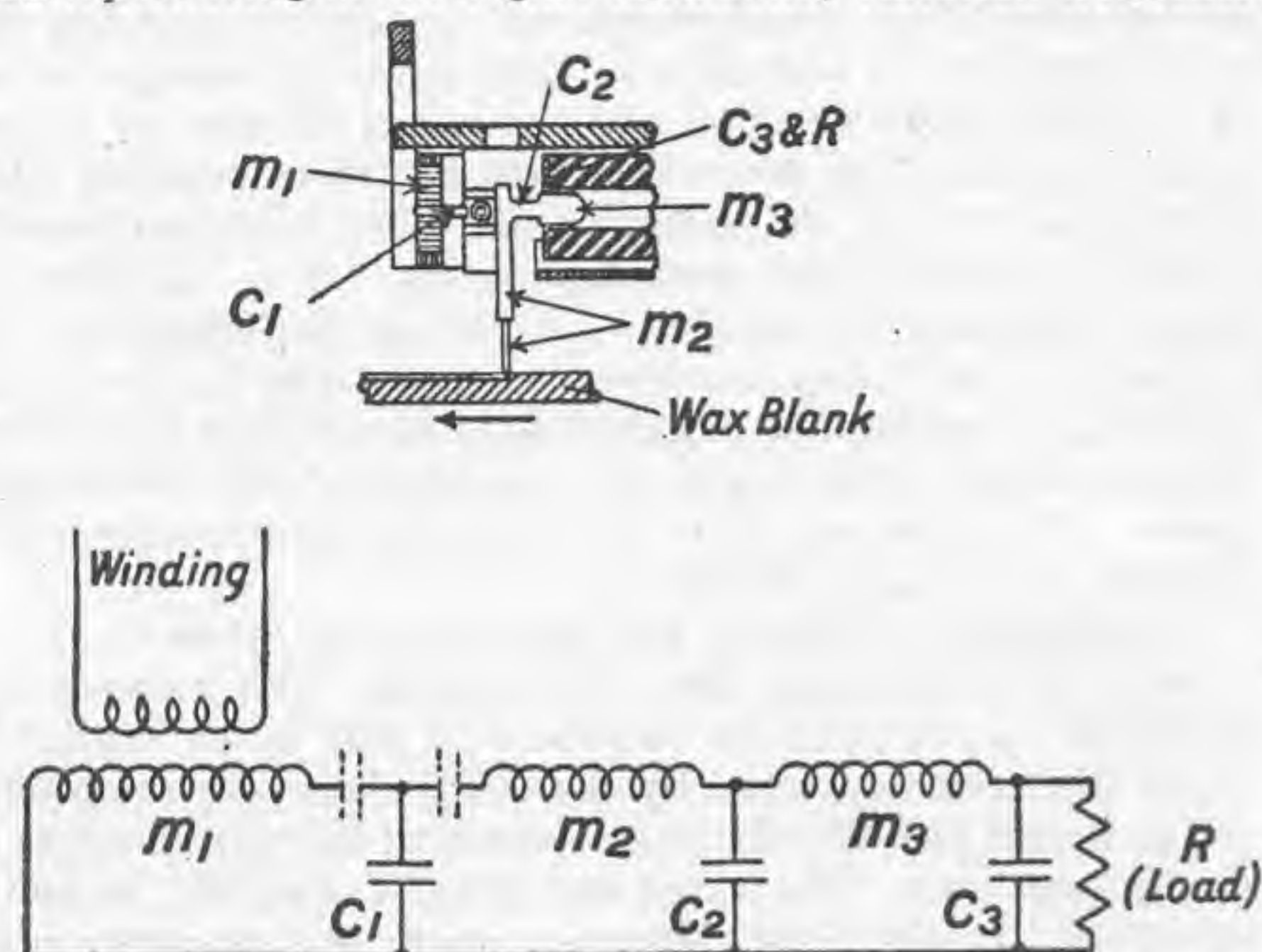


FIG. 1.—The inductance labelled m_1 represents the mass of the armature which, when acted on by the magnetic field, forms the driving portion of the mechanical system. The condenser c_1 produces the flexibility of the shaft connecting the armature to the stylus holder; m_2 represents the mass of the stylus holder and stylus; c_2 the flexibility of the shaft connecting the stylus holder with the metal piece which fits into the rubber damping element; m_3 the mass of this metal piece; and c_3 and R represent the properties of the damping element. The two condensers shown dotted and unlabelled represent the effect of the magnetic field on the armature and the restoring force of the balancing springs which hold the armature in its central position.

up to 6,000 cycles per sec. being successfully recorded, i.e., about $\frac{1}{2}$ octave above the highest note on the pianoforte. The elimination of metallic sounds is due to accuracy in recording and reproducing low notes and to the impartiality with which the various notes are treated. In the earlier machines, the fundamentals of the lower notes failed to be reproduced, but the ear of the listener, hearing the higher frequency harmonics of these notes, added the fundamentals, although the result lacked "body" and sounded "tinny." Were it not for this constructive faculty of the ear, the older phonographs and loud-speakers would have been useless. With the recently attained accuracy in actually reproducing the fundamentals of tones as low as 100

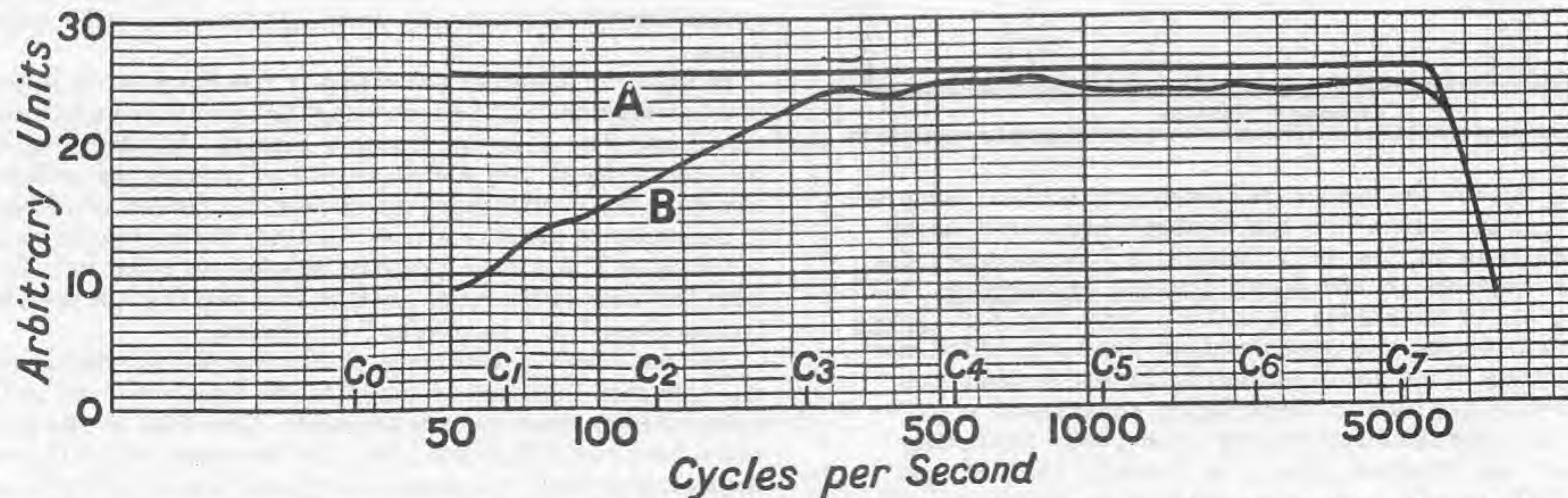


FIG. 2.—Curve A shows the response, that is, current, in the series branches of a low-pass filter as a function of pitch. Curve B shows a calibration of one of the recording instruments.

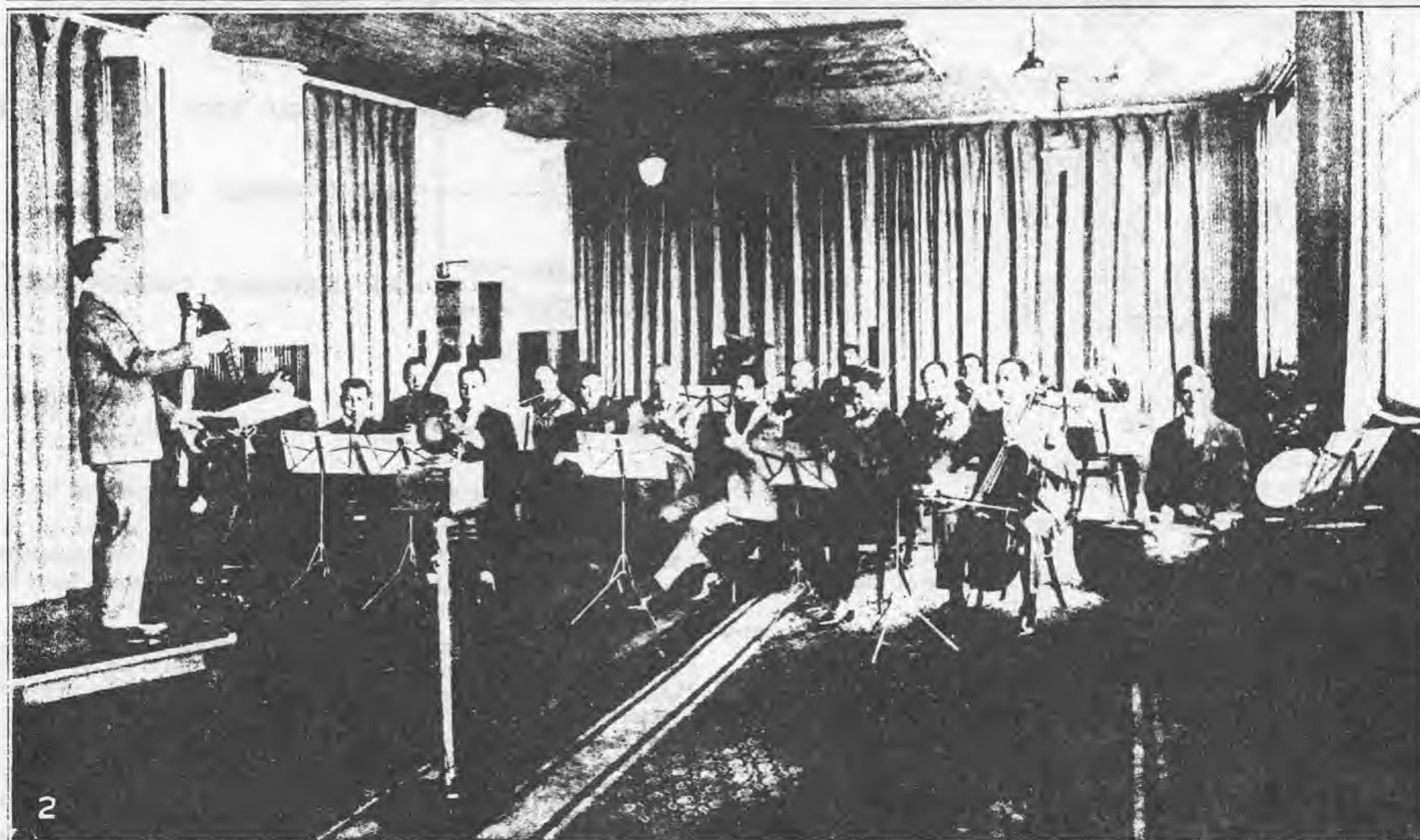


FIG. 1. Scene in recording studio, showing the means required with the older phonograph to create the necessary power for marking the record. The artists are grouped closely about the horn, and the weaker instruments (violins) are specially equipped with amplifying horns. FIG. 2. Studio scene, for recording by means of newer devices. The artists, playing naturally, are at a distance from the receiver, which picks up the sound after it has been properly blended with reverberations from the walls of the room.

(Courtesy of Victor Talking Machines Co., Camden, N.J., and the Amer. Inst. of Electr. Eng.)

case of a repeating filter, each section considered by itself resonates at the same frequency, but when combined into a short-circuited filter of n sections there will be n natural frequencies. However, when such a system is terminated with a resistance

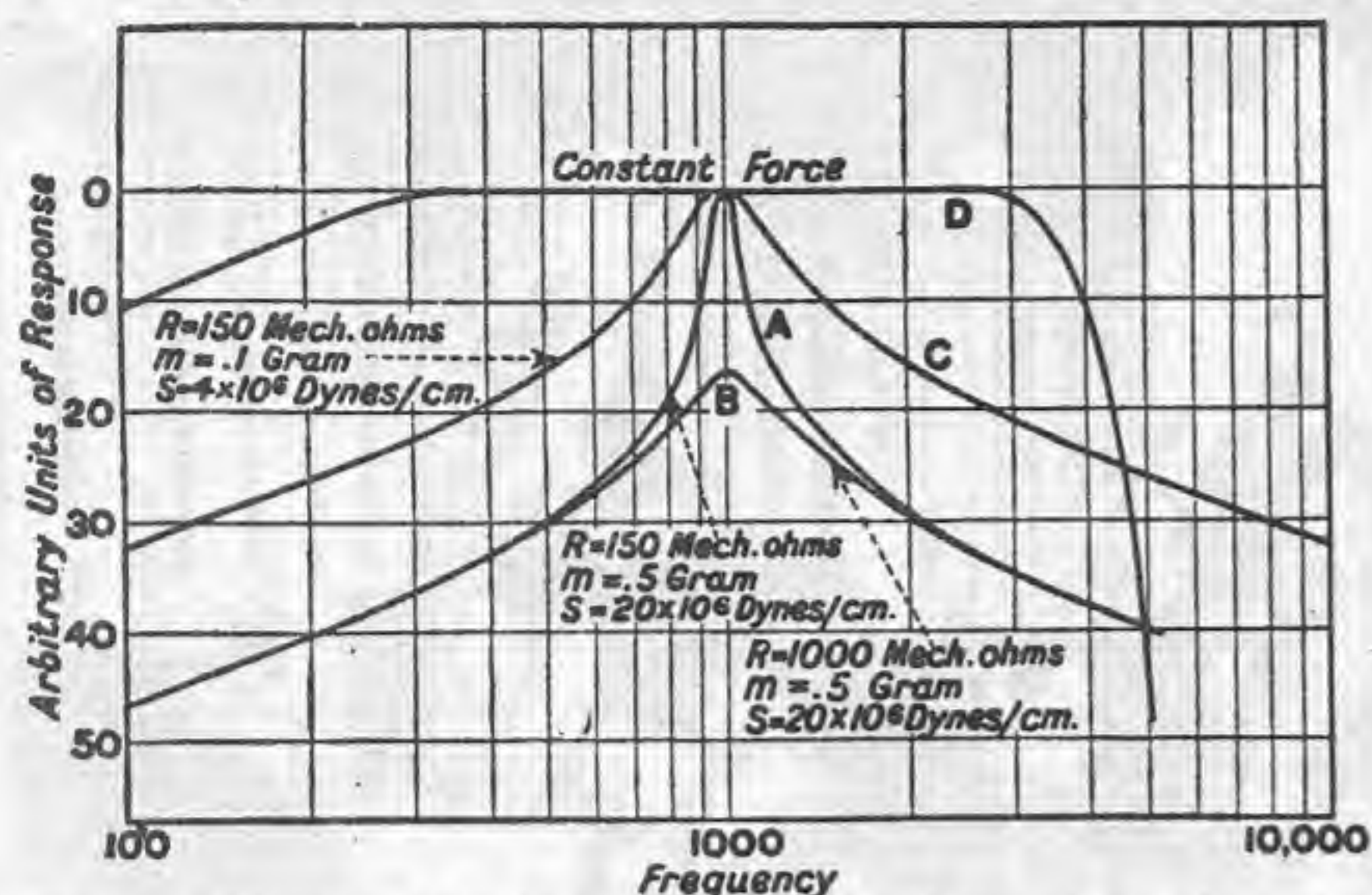


FIG. 3.—Diagram showing response for various values of mechanical constants.

which equals the nominal characteristic impedance in the transmission band, uniform response in the terminating resistance is obtained over the entire band.

New Phonograph.—Fig. 4 shows a diagrammatic sketch of the mechanical system of the new phonograph, while fig. 5 shows the equivalent electrical circuit. From these diagrams it is evident which units in the mechanical system correspond to the various electrical parts. As the series flexibilities c_2 , c_4 and c_6 have been made so large that the low frequency cut-off caused by them lies well below the low frequency cut-off of the horn, an inappre-

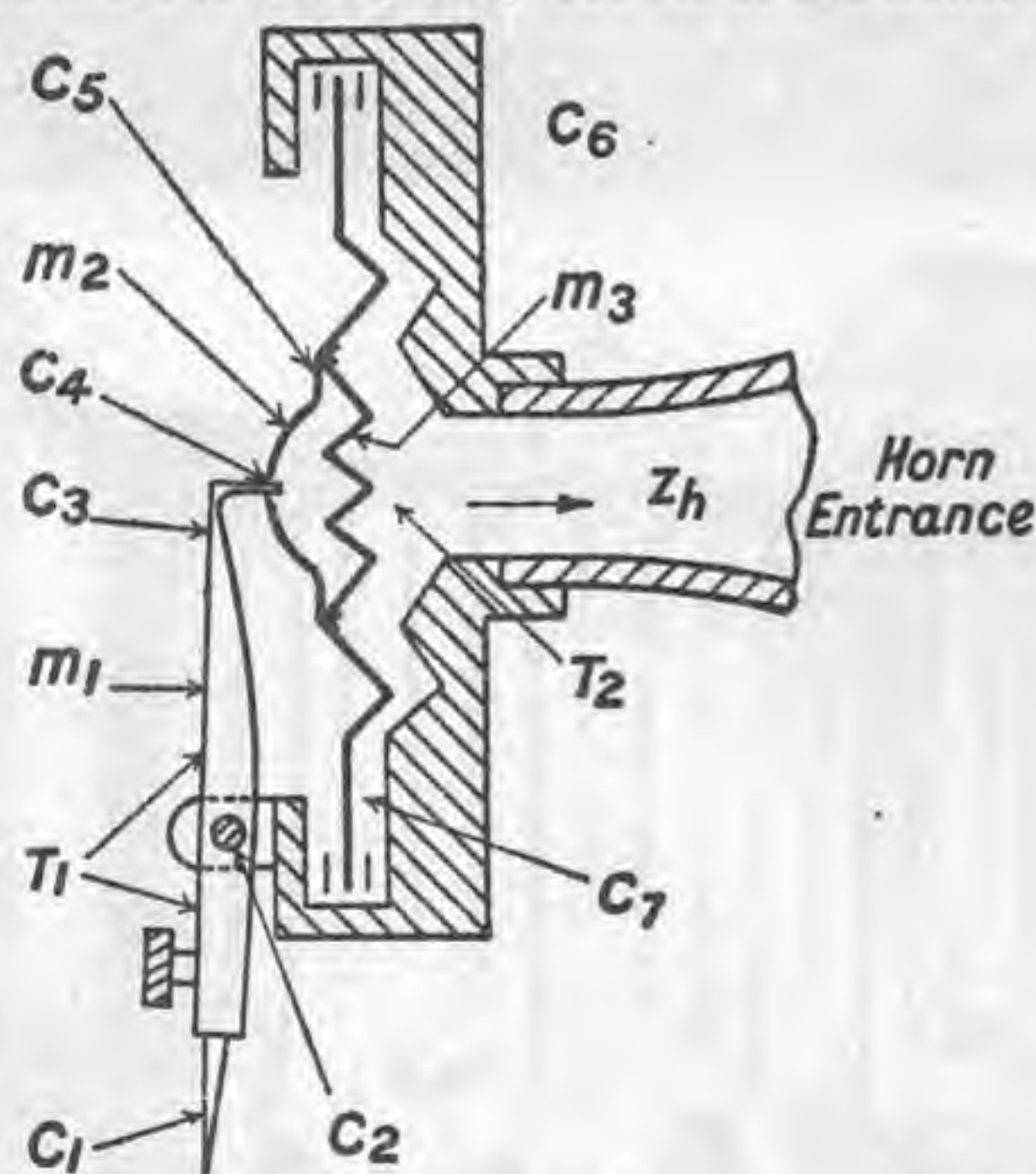


FIG. 4.—Diagrammatic sketch of the mechanical recording system of the phonograph.

ceptible error is introduced in using for design purposes formulae of low-pass filters.

The two formulae which have been used are as follows:—

$$f_c = \frac{1}{\pi} \sqrt{\frac{1}{mc}} \quad (1) \quad z_o = \sqrt{\frac{m}{c}} \quad (2) \quad \text{where } f_c = \text{cut-off}$$

frequency of a lumped transmission system in cycles per second, c = shunt compliance per section in centimetres per dynes, m = series mass per section in grammes, z_o = value of characteristic impedance over the greater part of the band range. This may be called nominal mid-shunt or mid-series impedance. Their actual values in the transmission band being at any frequency f , mid-series = $z_o \sqrt{1 - \frac{(f)^2}{f_c^2}}$ mid-

$$\text{shunt} = \frac{z_o}{\sqrt{1 - \frac{(f)^2}{f_c^2}}}$$

Equations (1) and (2), which form the basis of the design work, contain four variables, f_c , c , m and z_o . It is, therefore, necessary to determine two of them by the physical requirements of the problem,

after which the other two can be determined mathematically. The upper cut-off frequency f_c was arbitrarily chosen at 5,000 cp. as a compromise between the higher frequencies occurring on the record and the increase in surface noise as the cut-off is raised. The choice of the other arbitrarily set variable came after considerable preliminary experimenting, and was fixed by the difficulty of obtaining a diaphragm which is light enough and has a large enough area. Hence the effective mass of the diaphragm m_3 (figs. 4 and 5) was fixed at 0.186 grammes, which value can be obtained by careful design. The effective area can be made as large as 13 sq. centimetres.

Design of the Horn.—By the proper use of these two formulae with the two arbitrarily set variables it has been possible to determine mathematically the magnitude of the parts comprising the mechanical system. When this design is complete there still

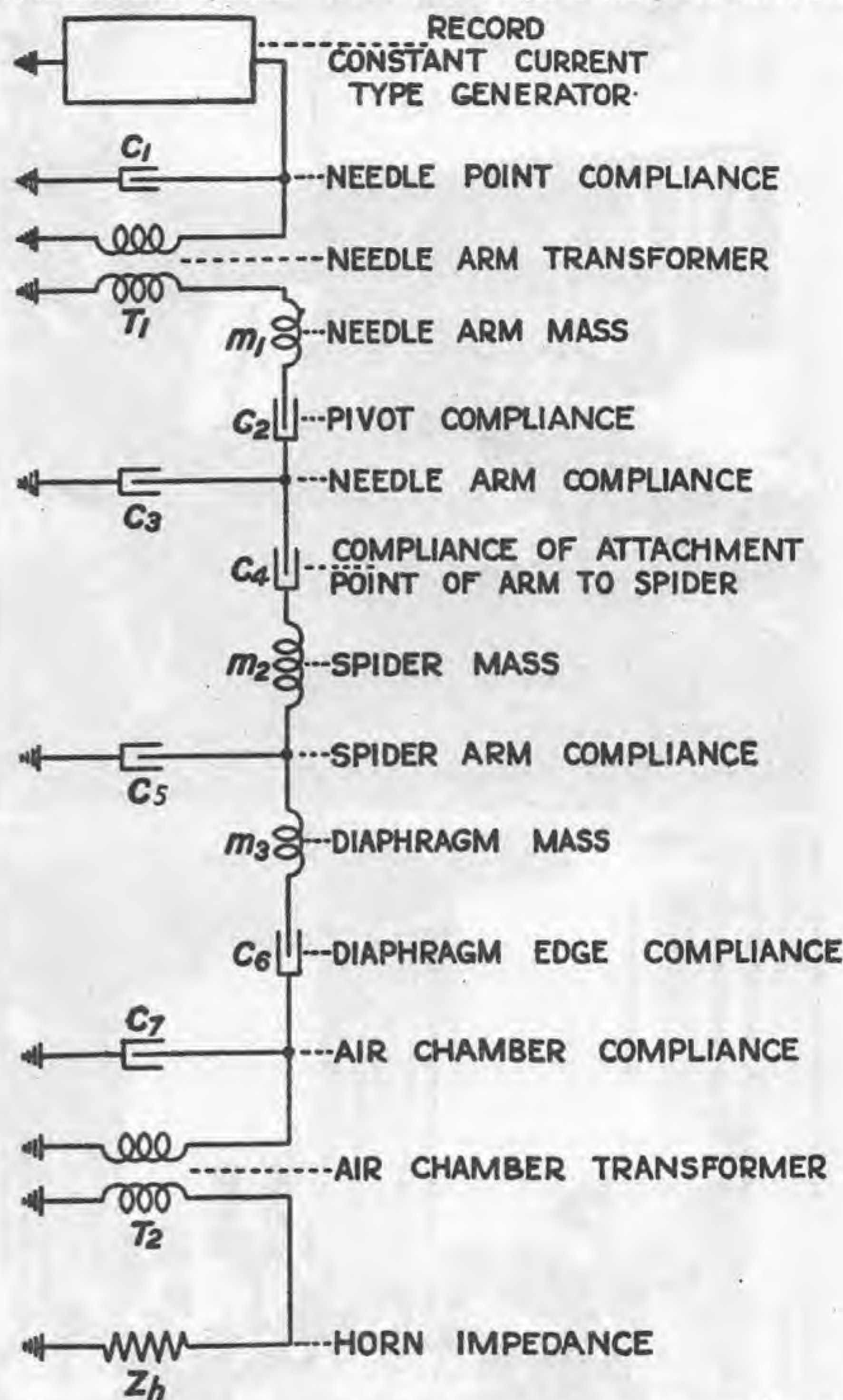


FIG. 5.—Electric equivalent of the system shown in fig. 4.

remains the terminating resistance, z_h , of figs. 4 and 5. This is supplied by the horn, which has been made of the logarithmic type. Certain general properties of logarithmic horns have been understood for some time.

There are two fundamental constants of such a horn—the first is the area of the large end and the second is the rate of taper. The area of the mouth determines the lowest frequency which is radiated satisfactorily. The energy of the frequencies below this is largely reflected if it is permitted to reach the mouth. From the equations given by Webster,¹ it can be shown that all logarithmic horns have a low frequency cut-off which is determined by the rate of taper. If the rate of taper is so proportioned that its resulting cut-off prevents the lower frequencies from reaching the horn mouth, the horn will then radiate all frequencies reaching its mouth and very little reflection will result. It is, therefore, possible to build a horn having no

¹ Much credit is due to P. B. Flanders, who carried out the mathematical investigation of these relationships; and to A. L. Thuras, who developed a method of checking experimentally the mathematical theory.

marked fundamental resonance. Since the characteristics of the horn are determined by the area of its mouth and by its rate of taper, the length of the horn is determined by the area of the small

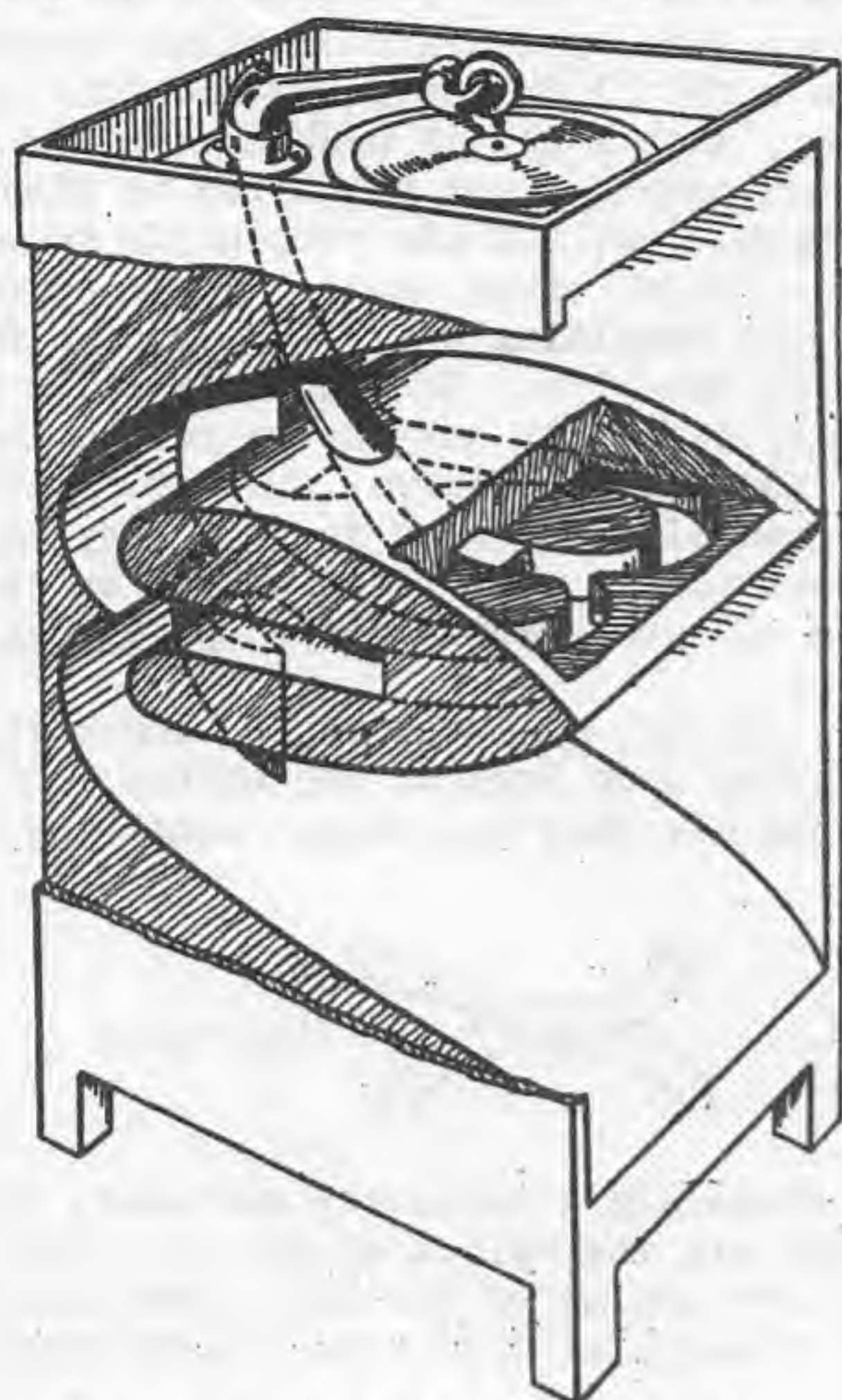


FIG. 6.—Sectional view of folded horn.

end. This area is determined in turn by the mechanical impedance and effective area of the system which it is terminating. It is seen, therefore, that the length of the horn should not be considered as a fundamental constant.

An interesting feature of the horn which has been built commercially is its method of folding. The sketch in fig. 6 shows a shadow picture of the horn. It will be noticed that the sound passage is folded only in its thin direction, which permits the radius of the turns to be small and thereby makes the folding compact. Fig. 7 shows the sensitiveness at various pitches of a phonograph designed as described above with a logarithmic horn whose rate of taper and area of mouth opening place the low cut-off at about 115 cycles. It also shows a similar curve for one of the best of the old style phonographs. Curve A represents the new machine, while curve B represents the old style machine. With this new equipment, it is easily possible for a listener to receive the full artistic effect of the music which is being reproduced, and with certain types of music it is no exaggeration to say that he may have the feeling of actually being in the presence of the artist. (See SOUND.)

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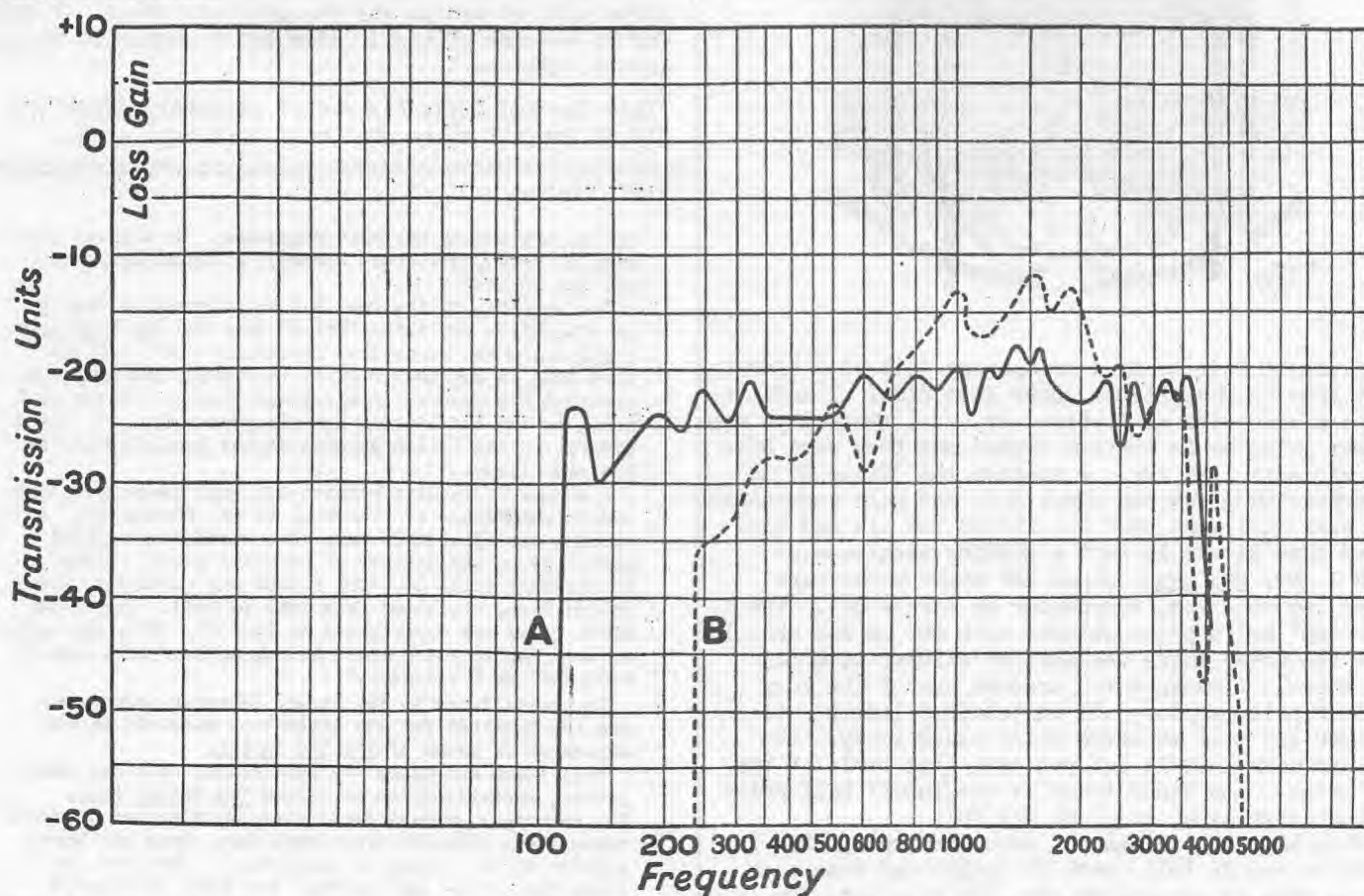


FIG. 7.—Curves showing sensitiveness at various pitches for the old and newer phonograph. Curve A represents the performance of the band pass filter type and curve B of the oldstyle machine.

The Aeolian-Vocalion Style L

In our last issue we reproduced a two-page advertisement for Aeolian-Vocalion phonographs which included a most unusual phonograph-in-a-table style. This prompted comments from two collectors from opposite ends of the globe, with opposite experiences. Readers will certainly find both interesting.

Michael Glicksman
Middletown, N.Y.

I was glad to see the ad reprinted because I own a "Style L," and have never before seen any reference to it anywhere - in fact, I didn't know it was called a "Style L." I also had a very nice "Style I" as illustrated, but I sold that one.

A few descriptive comments might clarify exactly what it is, since it may not be obvious from the picture. Outwardly, this machine looks like a "normal" demi-lune card table, with little clue that it's a phonograph. There is a crankhole in the front surface at the left-hand end, and the right-hand panel (notice the knob) swings out - it's the horn opening. The "lid" flips up and rests on a wooden prop, much like a baby grand piano, and the left end of the machine has the motor, turntable, tone arm and "Graduola" device down in there; the right side looks "solid" (i.e., it's covered up - the horn is inside this section). The mechanical parts are gold-plated and identical with the parts of the "Style I" and other Aeolian Graduolas.

Aeolian-Vocalions are obtainable in a wide variety of beautiful styles, which are on a par with the best examples of modern, artistic furniture designing.



I bought this machine in January 1978 at a charity thrift shop on Manhattan's upper East Side. I noticed quite a crowd there as I passed by, so I stopped to see what was going on in there - turned out they were having a big sale that day. I spotted the "Style L" in one corner and I saw the crank hole and gold escutcheon right away... I went over and lifted the lid and discovered that it was in fact a talking machine - or should I say, had been, since the upper works were missing (no tone arm, reproducer or turntable). The "table top" had a price sticker with \$60 on it; when I lifted the cover there was another sticker with \$25 under there. I managed to persuade one of the busy volunteer salespeople - all whitehaired ladies - to come over and tell me which price would apply. She said, "Of course we'll let you have this table at the lower price - and since today is our annual half-price cash and carry sale, it'll be \$12.50!"

From then on, things got more difficult; when I offered to pay in full, mark it "sold" and come back later to pick it up with my car, she retorted, "No,

this is strictly cash-and-carry today." Not only did I have to take it right now, but I had to move it down their interminable line at the check-out register, which was just like a bad day at the supermarket - and me without a cart! Have you ever tried to hail a cab in Manhattan with an Aeolian-Vocalion Graduola next to you at the curb? I do not recommend this experience.

Anyway, when I got it back home after a few more bits of excitement, I was gratified to find that I had on hand, brand new, all the components required to complete the machine, since several years before I had purchased the remaining parts supply of a former Aeolian dealer in Brooklyn. So now the machine plays well, and the only defect it has is the gold pointer on the bedplate, the indicator-arrow which shows which position the graduola mechanism is in at any moment (the primary control for this is of course on the outside just as on all other Graduolas & "Volunomes," of which this is one).

Incidentally, my machine has wooden stretchers connecting the four legs at the bottom, which is not shown in the ad; they are shaped something like this:



This was obviously a necessary addition, because this machine has all its weight at the top, and those willowy legs are not up to the task (they could get very loose and shakey) without some reinforcement.

Rod Cornelius
Auckland, New Zealand

I came across the Style L (the half round table) in a shop once. It was in perfect condition, complete with mechanism and the graduola cable. I didn't buy it because of cost. I've got a couple of versions of the Style L.

(It's too bad Style L's aren't uniformly priced at \$12.50 for all those who would like one! - Ed.)

(cont. from page 10)

and we are hoping for more responses. So dig out your copy of "You Can't Trust Nobody," a magnifying glass, and let us know.

Bob Waltrip, by the way, has an interesting theory on why Edison did this: "Ernest Hare had the most powerful voice for acoustical recording, and I believe that that is why they figured they could get away with pressing his grooves over someone else's. So far as I know, he had the loudest and clearest voice..." Bob's article on the Edison diamond stylus should appear in the next issue.

A couple of readers pointed out that there have been modern recordings of "The Song of Mr. Phonograph," including one apparently sung phonetically on a Dutch anthology on the history of recorded sound. Allen Koenigsberg tells us, "The author was (actually) Henry Holdem Huss, who lived from 1862 to 1953. Since the sheet music was copyrighted on June 22, 1978, the author was just 16 years old! A book on Huss will soon be published in New Jersey."

Congratulations to the Record Research Associates and Len Kunstadt for the piece they received in the September 16 issue of The New Yorker.

Neil Maken announces the publication of a new newsletter, tentatively to be called The Nipper News. The principal subject deals with anything and everything about Victor's trade mark dog, which has become popular as the center of collecting. For more information, write Neil at P.O. Box 6554, Huntington Beach, CA 92646.

Fred MacMurray, Actor, Is Dead at 83

By PETER B. FLINT

Fred MacMurray, the personable, unassuming actor who starred in some of the best film comedies of the 1930's and 40's and was later the protagonist in popular Walt Disney fantasies and the television situation comedy "My Three Sons," died yesterday at St. John's Hospital and Health Center in Santa Monica, Calif. He was 83 years old.

He died of pneumonia after being admitted to the hospital on Monday afternoon, said Sarah O'Meara, a family friend.

Reviewers repeatedly praised the charm, credibility and spontaneity of the 6-foot-3-inch-tall, pipe-smoking former saxophonist who had never studied acting. He had a good-guy image in nearly 80 films, but his most noted roles were cads — a passion-crazed murderer in "Double Indemnity" (1944) and "Pushover" (1954), a deceitful Navy lieutenant in "The Caine Mutiny" (1954) and an exploitative philanderer in "The Apartment" (1960).

Billy Wilder persuaded the affable actor to play the rotters in "Double Indemnity" and "The Apartment" to surprise and shock moviegoers. He did. According to a possibly apocryphal anecdote, Mr. MacMurray was walking in Disneyland one day when an elderly woman approached him and declared: "I always liked you until I saw you in 'The Apartment.' Now I hate you." She is said to have then pummeled him with her purse and stalked off.

"Whether I play a heavy or a comedian," he said, "I always start out Smiley MacMurray, a decent Rotarian type. If I play a heavy, there comes a point in the film when the audience realizes I'm really a heel."

Son of a Concert Violinist

Mr. MacMurray won many raises at Paramount Pictures, where he spent his first decade in Hollywood. In 1943, his annual salary was nearly \$420,000, making him that year's highest-paid actor and fourth-highest-paid American. Frugal by nature, he put his finances in the hands of a manager, made many profitable investments and reputedly became one of Los Angeles's richest citizens.

Frederick Martin MacMurray was born on Aug. 30, 1908, in Kankakee, Ill., where his father, Frederick, a concert violinist, was on tour. He began to know financial insecurity at the age of 5, when his parents separated. He spent most of his youth in Beaver Dam, Wis., where he graduated from high school with 10 letters in athletics. In high school and for one year at Carroll College in Waukesha, Wis., where he had an American Legion scholarship, he led his own three-piece band, Mac's Melody Boys.

Over the next eight years, Mr. MacMurray was a saxophonist and vocalist with various dance and vaudeville bands around the country and appeared on Broadway in two revues, "Three's a Crowd" and "The Third Little Show," and in a Jerome Kern musical, "Roberta." He won a contract with Paramount and achieved stardom in his first leading role, in the 1935 comedy "Gilded Lily."

He was a family-oriented man who lived unflamboyantly and relatively modestly, despite his wealth. His favorite recreations were golf, fishing, painting and cooking.

He is survived by his wife, the former actress June Haver, whom he married in 1954; a son, Robert, of Hawaii, and three daughters, Laurie Sipma of Sacramento, Calif., Kate MacMurray of Los Angeles and Susan Pool of Little Rock, Ark. His first wife, Lillian LaMonte, an actress and model, died in 1953.



ABC, 1964

Yes, it's the same Fred MacMurray singing on Gus Arnheim's 1930 "All I Want is Just One" — evidently his only recorded vocal solo.

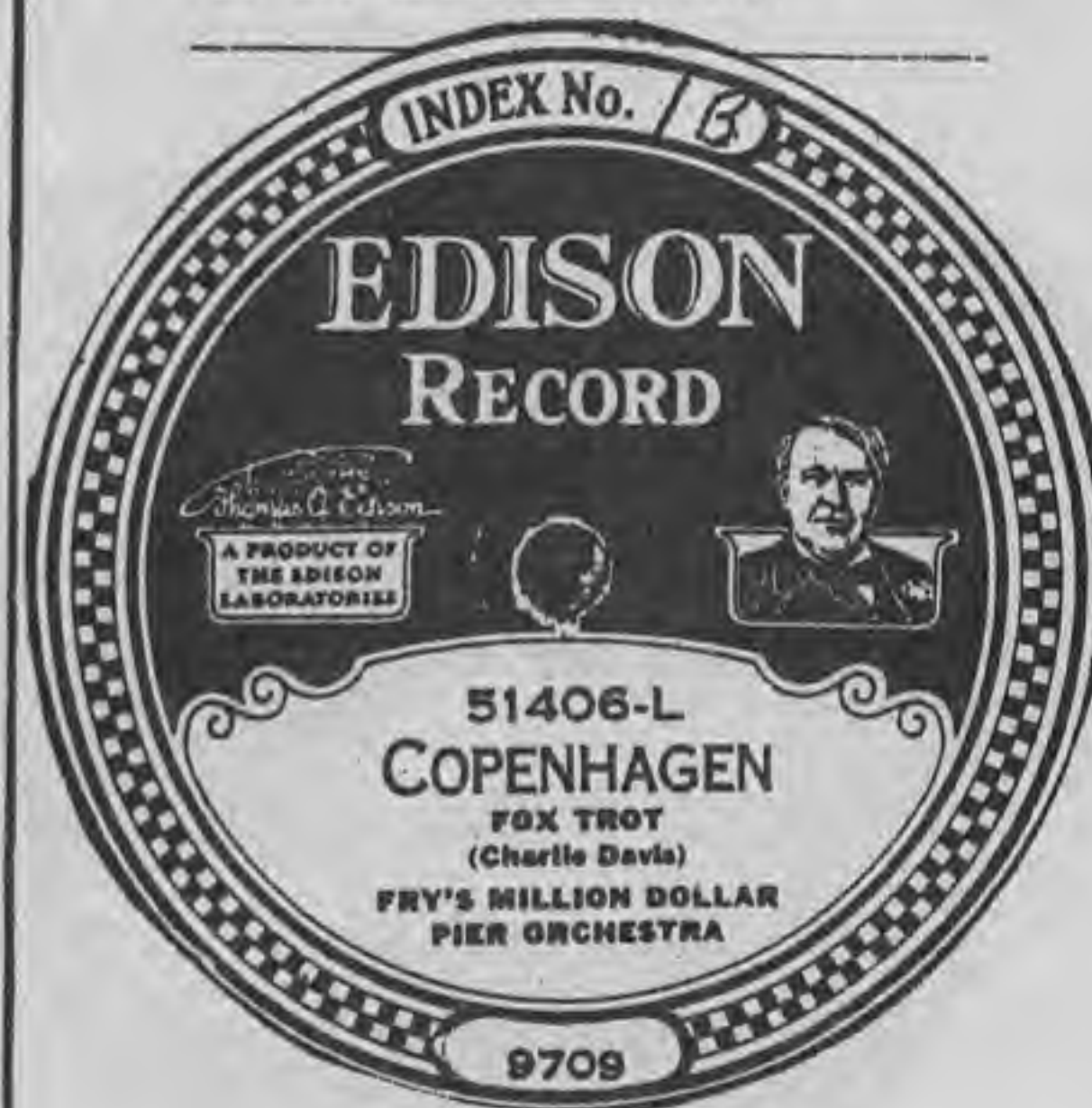
Obituaries



Waterville, Maine
Morning Sentinel
December 16, 1991

CHARLES F. DAVIS, an Indiana big-band leader, died Thursday at 92, according to an Oswego, N.Y., news report.

Davis' musical career spanned the 1920s and early 30s, when he directed his band, The Joy Gang, in the Indiana Theater.



Notes on the Obituaries

Before going to Columbia, Milton Charles recorded several sides for Orlando Marsh's early electrical process in Chicago (see issue #71, labels #4, 5, 9, and 22-24). It is regrettable that we didn't know Charles was still living, as he surely could have told us much about the Marsh operation.

Charlie Davis made only a handful of recordings for Gennett, Brunswick-Vocalion, and ARC between 1923 and 1934. At one time, Dick Powell played and sang with the Davis band. One of his lasting contributions to the jazz world was his composition "Copenhagen," reportedly named for his brand of chewing tobacco!

Other recent deaths in the music and recording world: Bobby Christian (he recorded with Louis Panico's Orchestra for Brunswick in 1930); Buck Clayton, Charlie Ventura and Champion Jack Dupree.

Thanks to Bill Bryant, Quentin Riggs, and Ed Zahlmann for spotting all these.

Los Angeles Times, November 7, 1991

Milton Charles; Organist for Silent Movies, Radio Shows

By BURT A. FOLKART
TIMES STAFF WRITER

Milton Charles, one of the last of the silent-film organists whose understated, often improvised accompaniments added to the eloquence of the plush theaters of long ago, has died.

His daughter, Stephanie Brown, said her father was 94 when he died Friday in Corona.

"He had been in good health and giving monthly concerts [at the retirement home where he had been living] until September," she said Monday.

Born to a musical family in San Jose in 1897, Charles was taking piano lessons at the age of 7, and at 13 was a church organist, earning \$25 a month. Two years later he had moved to San Francisco and was earning \$50 a week in its palatial film houses. But the move was not without some anguish—his music teacher refused to continue his lessons because he disapproved of a boy working in the film business.

Even back then, Charles said, he tried not to play the same music twice for each film, although he would repeat themes for various

characters and settings.

Sid Grauman, of Grauman's Chinese Theater fame, heard of him and asked him to come to Grauman's new Million Dollar Theater in downtown Los Angeles, where he shared the organ duties with Charlie (C Sharp) Minor. Minor would often leave the theater for hours at a time, Charles said in interviews over the years, so the teen-ager often worked 12 hours or more a day.

"And then Sid would call me late at night to go back to the theater to entertain his guests."

Those included Charlie Chaplin, Gloria Swanson, Jack Coogan (Jackie's father) and Carter de Haven, a famous actor of the day.

At the time, Charles was one of only a dozen or so theater organists in the country used at major movie houses, and he began to move around, to Chicago's Tivoli Theater and then back to Los Angeles, where the Paramount had just been built at 6th and Hill streets.

He also gave concerts in Philadelphia and Europe, often accompanied by symphony orchestras.

After sound films became prevalent at the end of the 1920s, Charles moved to radio, scoring back-



Milton Charles

ground music for "The Amos and Andy Show," "Ma Perkins" and "The Road of Life." He later worked on the Roy Rogers and Gene Autry radio shows, was a staff organist with CBS in Los Angeles, and spent the last 20 years of his career as organist and vocalist at the Kings Arms restaurant in Toluca Lake.

He retired about 20 years ago.

Survivors include four sons, three daughters, nine grandchildren and six great-grandchildren.

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